

**SITE INVESTIGATION REPORT/ INTERIM REMEDIAL ACTION WORKPLAN  
VETERANS MEMORIAL PARK  
BLOCK 260, LOT 15.02  
SOUTH PLAINFIELD, NEW JERSEY  
PMK GROUP NO. 0502014**

**VOLUME III**

**LABORATORY ANALYTICAL DATA PACKAGE**

<b>SECTION A</b>	<b>P3425</b>
<b>SECTION B</b>	<b>P3702</b>

**PREPARED BY:**

**THE PMK GROUP  
PO BOX 5000  
65 JACKSON DRIVE  
CRANFORD, NEW JERSEY 07016**

**PREPARED FOR:**

**BOROUGH OF SOUTH PLAINFIELD  
2480 PLAINFIELD AVENUE  
SOUTH PLAINFIELD, NEW JERSEY 07080**

**OCTOBER 18, 2002**

**DATA PACKAGE FOR  
VOLATILE ORGANICS  
SEMI-VOLATILE ORGANICS  
GC SEMI-VOLATILES  
METALS  
GENERAL CHEMISTRY**

**PROJECT NAME: Veterans Memorial Park**

**PMK GROUP  
65 JACKSON DRIVE  
CRANFORD, NJ 07016  
9084978900**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**P3425  
Devang Patel**



COVER PAGE

Order P3425

ProjectID: Veterans Memorial Park

CustomerName PMK Group

LAB SAMPLE NO.  
P3425-01

CLIENT SAMPLE NO  
GC-2

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: [Signature] Name: Raytheon, Kalper  
Date: 8/19/02 Title: QA Lead

# CHEMTECH


## QA/QC DELIVERABLES CHECKLIST

Project Number: P3425

THIS FORM HAS BEEN COMPLETED BY CHEMTECH LABORATORY AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.

The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.

	Yes	NA
I. Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	<input checked="" type="checkbox"/>	
II. Table of Contents	<input checked="" type="checkbox"/>	
III. Chain of Custody Documents	<input checked="" type="checkbox"/>	
IV. Methodology Summaries	<input checked="" type="checkbox"/>	
V. Laboratory Chronicle and Hold Time Checks	<input checked="" type="checkbox"/>	
VI. Non-Conformance Summary	<input checked="" type="checkbox"/>	
VII. Tabulated Analytical Results	<input checked="" type="checkbox"/>	
VIII. Initial and Continuing Calibration Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IX. Tune and Internal Standard Area Summaries (GC/MS)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
X. Quality Control Summary Reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XI. Surrogate Recovery Summary	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XII. Raw Data Chromatogram, Blank, Samples and QC when applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XIII. Subcontract Data	<input type="checkbox"/>	<input checked="" type="checkbox"/>

  
QA/QC Data Reviewer

8/19/02  
Date

□ 110 Route 4  
Englewood, NJ 07631  
Phone: 201.568.7400 Fax: 201.567.3231

□ 284 Sheffield Street  
Mountainside, NJ 07092  
Tel 908.789.8900 Fax: 908.789.8922

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## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax (908) 789-8922

www.chemtech.net

CHEMTECH JOB NO.:

P3425

CHEMTECH QUOTE NO.:

## CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY:

PMK Group

ADDRESS:

65 Jackson Dr

CITY:

CRANFORD

STATE: NJ

ZIP:

ATTENTION:

Devang Patel

PHONE:

908 497 8900

FAX:

## PROJECT INFORMATION

PROJECT NAME:

Veterans Memorial Park

PROJECT NO.:

0502014

PROJECT MANAGER:

Devang Patel

LOCATION:

PHONE:

FAX:

## BILLING INFORMATION

BILL TO:

PMK

PO #:

ADDRESS:

CITY:

STATE:

ZIP:

ATTENTION:

PHONE:

## ANALYSIS

## DATA TURNAROUND INFORMATION

FAX:

2452

DAYS \*

HARD COPY:

DAYS \*

EDD:

DAYS \*

\* TO BE APPROVED BY CHEMTECH

\*\* NORMAL TURNAROUND TIME - 14 DAYS

## DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY☐ NY STATE CATEGORY A☐ RESULTS PLUS QC☐ NY STATE CATEGORY B☐ REGULATORY FORMAT, STATE:☒ NEW JERSEY REDUCED DELIVERABLES☐ CLP☐ EDD FORMAT:GC Finger print  
GC/MS

## PRESERVATIVES

## COMMENTS

CHEMTECH  
SAMPLE  
IDPROJECT  
SAMPLE IDENTIFICATIONSAMPLE  
MATRIXSAMPLE  
TYPE  
COMP GRABSAMPLE  
COLLECTION  
DATE TIME

# OF BOTTLES

1

2

3

4

5

6

7

8

9

← Specify Preservatives  
A - HCl B - HNO<sub>3</sub>  
C - H<sub>2</sub>SO<sub>4</sub> D - NaOH  
E - ICE F - Other

1. GC

GC-2

Other

X

7/23/02

5:00pm

1

X

X

2.

3.

4.

5.

6.

7.

8.

## SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:

DATE/TIME:

RECEIVED BY:

1. Devang Patel

7/23/02 5:10pm

1. John Sanspau

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY:

2. John Sanspau

7/23/02 5:42

2.

RELINQUISHED BY:

DATE/TIME:

RECEIVED FOR LAB BY:

3.

07/23/02 5:45

3. RS

Conditions of bottles or coolers at receipt:

☐ Compliant☐ Non-Compliant☐ Temp. of Cooler \_\_\_\_\_

Comments:

Page

of

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT  
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHTShipment Complete:  
☐ YES ☐ NO

## Record Of Communication Login Change Form

<b>Order Number:</b> P3425	<b>Today's Date:</b>  
<b>Client:</b> PMK Group	<b>Sample Date:</b> 07/23/02
<b>Client Contact:</b> Devang Patel/John Gaspari	<b>Form Initiated by:</b> Omayra Penas
	<b>Project Manager</b> Omayra Penas
<b>General Comments/Special Instructions:</b> As per clients request the following analysis have been activated for Full TCLP and RCRA Charac.	

Call initiated by ☒ Client ☐ Chemtech

### Login Changes

Sample Number	Add Test	Delete Test	Change TAT
P3425-01	Full TCLP, RCRA Charac.		1 week tat.

Signature Omayra Penas Date 8/19/02

QA REVIEW GENERAL DOCUMENTATION

Project #: P3425

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication, airbill, sample management lab chronicle, login page)

Check chain-of-custody for proper relinquish/return of samples

Is the chain of custody signed and complete

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

Collect information for each project id from server. Were all requirements followed

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody and on login page

Do lab numbers and client Ids on cover page agree with the Chain of Custody

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

Do requested analyses on Chain of Custody agree with the log-in page

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

Were the samples received within hold time

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

Non - Conformance /Comments:

1<sup>st</sup> Level QA Review Signature: [Signature]

Date: 8/19/02

2<sup>nd</sup> Level QA Review Signature: Candice Collins

Date: 8/19/02

**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following "Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.



## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

- B If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
- U If the analyte was analyzed for, but not detected.
- E The reported value is estimated because of the presence of interference
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Addition (MSA).
- W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while absorbance is less than 50% of spike absorbance.
- \* Duplicate analysis not within control limits.
- + Correlation coefficient for the MSA is less than 0.995.
- \*\*\* Entering "S", "W " or " +" is mutually exclusive. NO combination of these qualifiers can appear in the same field for an analyte.

### M

#### Method qualifiers

- "P" for ICP instrument
- "A" for Flame AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for flame AA when Microwave Digestion is used
- "FM" for furnace AA when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for automated Cold Vapor AA
- "CA" for MIDI-Distillation Spectrophotometric
- "AS" for Semi -Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- "NR" for analyte not required to be analyzed

# CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

## GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P 3425 MATRIX: SO/L (TCLP)

METHOD: 8260

	<u>NA</u>	<u>NO</u>	<u>YES</u>
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)	_____	_____	<u>✓</u>
2. GC/MS Tuning Specifications	_____	_____	<u>✓</u>
BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)	_____	_____	<u>✓</u>
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series	_____	_____	<u>✓</u>
4. GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.	_____	_____	<u>✓</u>
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds for 8260 and CLP	_____	_____	<u>✓</u>
b. System Performance Check Compounds for 8260 and CLP	_____	_____	<u>✓</u>

### 8260 CALIBRATION CRITERIA

<u>SPCC Compounds</u>	<u>MIN RF</u>	<u>CCC Compounds</u>
Chloromethane	0.1	1,1-Dichloroethene
1,1-Dichloroethane	0.1	Chloroform
Bromoform	0.1	1,2-Dichloropropane
Chlorobenzene	0.3	Toluene
1,1,2,2-Tetrachloroethane	0.3	Ethylbenzene
		Vinyl chloride

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%  
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank: \_\_\_\_\_ ✓ \_\_\_\_\_

7. Surrogate Recoveries Meet Criteria \_\_\_\_\_ ✓

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY(CONTINUED)

NA NO YES

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria

\_\_\_ ✓ \_\_\_

If not met, list those compounds and their recoveries which fall outside the acceptable range.

*PLS SEE RESULTS*

9. Internal Standard Area/Retention Time Shift Meet Criteria

\_\_\_ \_\_\_ ✓

Comments: \_\_\_\_\_

10. Analysis Holding Time Met

\_\_\_ \_\_\_ ✓

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS: \_\_\_\_\_

Analyst

*[Signature]*

Date

*8/6/02*

QA REVIEW

*[Signature]*

Date

*8/19/02*

GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARYCHEMTECH PROJECT NUMBER: P 3425MATRIX: SolidMETHOD: 8270

	<u>NA</u>	<u>NO</u>	<u>YES</u>
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)	_____	_____	<u>✓</u>
2. GC/MS Tuning Specifications. DFTPP Meet Criteria Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)	_____	_____	<u>✓</u>
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series	_____	_____	<u>✓</u>
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	_____	_____	<u>✓</u>
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds for 8270 and CLP	_____	_____	<u>✓</u>
b. System Performance Check Compounds for 8270 and CLP	_____	_____	<u>✓</u>

8270 CALIBRATION CRITERIASPCC CompoundsMINRFCCC CompoundsBase/Neutral FractionAcid Fraction

N-nitroso-di-n-propylamine

0.050

Acenaphthene

4-Chloro-3-methylphenol

Hexachlorocyclopentadiene

0.050

1,4-Dichlorobenzene

2,4-Dichlorophenol

2,4-Dinitrophenol

0.050

Hexachlorobutadiene

2-Nitrophenol

4-Nitrophenol

0.050

Diphenylamine

Phenol

Di-n-octyl phthalate

Pentachlorophenol

Fluoranthene

2,4,6-Trichlorophenol

Benzo(a)pyrene

For CCC compounds Initial Calibration Criteria - RSD less than or equal to 30%

For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank: \_\_\_\_\_ ✓ \_\_\_\_\_

a. B/N Fraction \_\_\_\_\_

b. Acid Fraction \_\_\_\_\_

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

## 7. Surrogate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

a. B/N Fraction

See Summary form # 2

b. Acid Fraction

## 8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable range.

a. B/N Fraction

See Summary form # 3

b. Acid Fraction

Blank spike reported

## 9. Internal Standard Area/Retention Time Shift Meet Criteria

Comments:

See Summary form # 8

## 10. Extraction Holding Time Met

If not met, list number of days exceeded for each sample:

## 11. Analysis Holding Time Met

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Analyst

Nina

QA REVIEW

R

Date

07/31/02

Date

8/19/02

**CHEMTECH**

SOP ID: CKLST-SEMI-VOA-REV

DOC. CONTROL #: CKLST-SEMI-VOA-REV -1.0

REVISION # 1.0

Page 1 of 2

Date: 04/28/00

PEER REVIEW CHECKLIST FOR GCMS SEMI-VOA DATAFraction: WCCProject #: P3425Sample Numbers: 01QA DATA:

## ITEM

Completed

Check instrument log for samples in batch. Highlights.

Make sure correct lab numbers are listed on all data.

Check Chain of Custody and Login Sheet for project specific information.

Check that all manual integrations are initialed and dated.

## TUNES:

Check that the proper tune is included and that the appropriate lab #s are listed on the tune.

Check that the tune meets the correct criteria.

Check that all samples were run within 12 hours for 8270 and CLP, 24 hours for 625.

## BLANKS:

Check quant report for compounds called and quantitation.

Check if any compounds need to be flagged with a J.

Check that blank meets contamination criteria.

Check blank nontargeted results for proper CAS #, retention time, compound name, mw, concentration against spectra.

Check blank chromatograms to ensure that all peaks are accounted for.

Check that all compounds not called are crossed off, initialed and dated on quantitation reports and tics.

Check that spectra are included for all compounds called.

## CALIBRATION:

Check that the proper initial and continuing calibration forms are included.

Compare initial curves to continuing curve to make sure correct curves are included.

Verify dates on curves.

Verify that extra compound initial and continuing curves are included.

Check that SPCCS and CCCS meet criteria on the initial and continuing calibrations.

## SURROGATES:

Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).

Check that surrogate recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-extracted and re-analyzed to prove matrix interference).

Verify surrogates reported to the quantitation reports.

## SPIKES:

Verify that the correct spike sample is being reported for that batch.

Check that the spike recoveries are reported in the appropriate form (i.e. water, soil).

Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Verify spike recoveries to quantitation reports.

If any values outside of QC limits exist on MS/MSD, was Blank Spike used.

Non-conformances / Comments: \_\_\_\_\_

**CHEMTECH**

SOP ID: CKLST-SEMI-VOA-REV

DOC. CONTROL #: CKLST-SEMI-VOA-REV -1.0

REVISION # 1.0

Page 2 of 2

Date: 04/28/00

**SAMPLES:****ITEM****Completed**

Check that all manual integrations are initialed and dated.

☒

Check quant report for targeted compounds called and randomly verify quantitation (be sure to take moisture and dilutions into account).

☒

Verify that the appropriate number and largest non-target peaks are called.

☒

Check to ensure that compounds which exceed the linear range have been diluted re-analyzed, and quanted from the dilution.

☒

Check that reporting limits are typical and if not (reason is not apparent) are footnoted.

☒

Verify reporting limits for extra compounds.

☒

Check nontargeted results for proper concentration, CAS #, retention time, compounds need to be flagged with B or J.

☒

Check that spectra are included for all compounds called.

☒

Check chromatograms to ensure that all peaks are accounted for.

☒

Check if any of the data requires a footnote.

☒

Check that the samples were run / extracted within their holding time.

☒

Non - Conformance / Comments: \_\_\_\_\_

Peer Review Signature: \_\_\_\_\_

*Keupa D*

Date: \_\_\_\_\_

*8/2/02***TECHNICAL SUPERVISOR REVIEW:****ITEM****Completed**

Check for compliance with the Method and project specific requirements.

☐

Check the report for completeness.

☐

Check the information in the case narrative.

☐

Check the results for reasonableness.

☐

Technical Supervisor Review Signature: \_\_\_\_\_

*R*

Date: \_\_\_\_\_

*8/19/02*

chklst-semi-voa-rev1.doc

GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARYCHEMTECH PROJECT NUMBER: P3425NJMATRIX: WaterMETHOD: 8270

	<u>NA</u>	<u>NO</u>	<u>YES</u>
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)	_____	_____	<u>✓</u>
2. GC/MS Tuning Specifications. DFTPP Meet Criteria Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)	_____	_____	<u>✓</u>
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series	_____	_____	<u>✓</u>
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	_____	_____	<u>✓</u>
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds for 8270 and CLP	_____	_____	<u>✓</u>
b. System Performance Check Compounds for 8270 and CLP	_____	_____	<u>✓</u>

8270 CALIBRATION CRITERIA

<u>SPCC Compounds</u>	<u>MINRF</u>	<u>CCC Compounds</u>	<u>Acid Fraction</u>
N-nitroso-di-n-propylamine	0.050	<u>Base/Neutral Fraction</u>	4-Chloro-3-methylphenol
Hexachlorocyclopentadiene	0.050	Acenaphthene	2,4-Dichlorophenol
2,4-Dinitrophenol	0.050	1,4-Dichlorobenzene	2-Nitrophenol
4-Nitrophenol	0.050	Hexachlorobutadiene	Phenol
		Diphenylamine	Pentachlorophenol
		Di-n-octyl phthalate	2,4,6-Trichlorophenol
		Fluoranthene	
		Benzo(a)pyrene	

For CCC compounds Initial Calibration Criteria - RSD less than or equal to 30%

For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations on each blank: \_\_\_\_\_ ✓ \_\_\_\_\_
- a. B/N Fraction \_\_\_\_\_
- b. Acid Fraction \_\_\_\_\_



GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

7. Surrogate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

a. B/N Fraction

b. Acid Fraction

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable range.

a. B/N Fraction

b. Acid Fraction

9. Internal Standard Area/Retention Time Shift Meet Criteria

Comments:

10. Extraction Holding Time Met

If not met, list number of days exceeded for each sample:

11. Analysis Holding Time Met

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Analyst

Date

QA REVIEW

Date

## CHEMTECH

SOP ID: CKLST-SEMI-VOA-REV

DOC. CONTROL #: CKLST-SEMI-VOA-REV -1.0

REVISION # 1.0

Page 1 of 2

Date: 04/28/00

## PEER REVIEW CHECKLIST FOR GCMS SEMI-VOA DATA

Fraction: SVOCProject #: P3425Sample Numbers: 01QA DATA:

## ITEM

Completed

Check instrument log for samples in batch. Highlights.

Make sure correct lab numbers are listed on all data.

Check Chain of Custody and Login Sheet for project specific information.

Check that all manual integrations are initialed and dated.

## TUNES:

Check that the proper tune is included and that the appropriate lab #s are listed on the tune.

Check that the tune meets the correct criteria.

Check that all samples were run within 12 hours for 8270 and CLP, 24 hours for 625.

## BLANKS:

Check quant report for compounds called and quantitation.

Check if any compounds need to be flagged with a J.

Check that blank meets contamination criteria.

Check blank nontargeted results for proper CAS #, retention time, compound name, mw, concentration against spectra.

Check blank chromatograms to ensure that all peaks are accounted for.

Check that all compounds not called are crossed off, initialed and dated on quantitation reports and tics.

Check that spectra are included for all compounds called.

## CALIBRATION:

Check that the proper initial and continuing calibration forms are included.

Compare initial curves to continuing curve to make sure correct curves are included.

Verify dates on curves.

Verify that extra compound initial and continuing curves are included.

Check that SPCCS and CCCS meet criteria on the initial and continuing calibrations.

## SURROGATES:

Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).

Check that surrogate recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-extracted and re-analyzed to prove matrix interference).

Verify surrogates reported to the quantitation reports.

## SPIKES:

Verify that the correct spike sample is being reported for that batch.

Check that the spike recoveries are reported in the appropriate form (i.e. water, soil).

Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Verify spike recoveries to quantitation reports.

If any values outside of QC limits exist on MS/MSD, was Blank Spike used.

Non-conformances / Comments:

**CHEMTECH**

SOP ID: CKLST-SEMI-VOA-REV  
DOC. CONTROL #: CKLST-SEMI-VOA-REV -1.0

REVISION # 1.0

Page 2 of 2

Date: 04/28/00

**SAMPLES:**

ITEM	Completed
Check that all manual integrations are initialed and dated.	<u>      /      </u>
Check quant report for targeted compounds called and randomly verify quantitation (be sure to take moisture and dilutions into account).	<u>      /      </u>
Verify that the appropriate number and largest non-target peaks are called.	<u>      /      </u>
Check to ensure that compounds which exceed the linear range have been diluted re-analyzed, and quanted from the dilution.	<u>      /      </u>
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.	<u>      /      </u>
Verify reporting limits for extra compounds.	<u>      /      </u>
Check nontargeted results for proper concentration, CAS #, retention time, compounds need to be flagged with B or J.	<u>      /      </u>
Check that spectra are included for all compounds called.	<u>      /      </u>
Check chromatograms to ensure that all peaks are accounted for.	<u>      /      </u>
Check if any of the data requires a footnote.	<u>      /      </u>
Check that the samples were run / extracted within their holding time.	<u>      /      </u>
Non - Conformance / Comments: _____	

Peer Review Signature:       Koupa      Date:       8/11/02      TECHNICAL SUPERVISOR REVIEW:

ITEM	Completed
Check for compliance with the Method and project specific requirements.	<u>                    </u>
Check the report for completeness.	<u>                    </u>
Check the information in the case narrative.	<u>                    </u>
Check the results for reasonableness.	<u>                    </u>

Technical Supervisor Review Signature:       R       Date:       8/19/02      

chklst-semi-voa-rev1.doc

## GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT LAB NUMBER: 03425 MATRIX: LEACHATE METHOD: 8081

- |  | YES                                 | NA                       | NO                                  |
|--|-------------------------------------|--------------------------|-------------------------------------|
| 1. Chromatograms Labeled/Compounds Identified.   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 2. Standards Summary Submitted   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 4. Blank Contamination - If yes, list compounds and concentrations in each blank:  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <hr/>  |                                     |                          |                                     |
| 5. Surrogate Recoveries Meet Criteria  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| If not met, list those compounds and their recoveries which fall outside the acceptable ranges.  |                                     |                          |                                     |
| <hr/>  |                                     |                          |                                     |
| 6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria.   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| If not met, list those compounds and their recoveries which fall outside the acceptable range.   |                                     |                          |                                     |
| <u>matrix interference</u>   |                                     |                          |                                     |
| <hr/>  |                                     |                          |                                     |
| 7. Retention Time Shift Meet Criteria (if applicable)  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 8. Extraction Holding Time Met   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| If not met, list number of days exceeded for each sample.  |                                     |                          |                                     |
| <hr/>  |                                     |                          |                                     |
| 9. Analysis Holding Time Met   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| If not met, list those compounds and their recoveries which fall outside the acceptable range.   |                                     |                          |                                     |

Additional Comments: RT updated as per SW 846Analyst AlmDate Aug 12, 2012QA REVIEW RDate 8/19/12

Document Control # A3040027

Page 1 of 1

PEER REVIEW CHECKLIST FOR GC DATA

Fraction: Per Project #: P3425  
Sample Numbers: P3425-01

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	<input checked="" type="checkbox"/>
Make sure correct lab numbers are listed on all data.	<input checked="" type="checkbox"/>
Check Chain Custody and Login Sheet for project specific information.	<input checked="" type="checkbox"/>
Check that all manual integrations are initialed and dated.	<input checked="" type="checkbox"/>
Verify that the retention time of every peak of interest meet the criteria for window (RT $\pm$ 3 times the standard deviation of the mean absolute value or default to 0.03 minutes.)	<input checked="" type="checkbox"/>
BLANKS:	
Check quant report for compounds called and quantitation.	<input checked="" type="checkbox"/>
Check if any compounds need to be flagged with a J.	<input checked="" type="checkbox"/>
Check that blank meets contamination criteria.	<input checked="" type="checkbox"/>
Check blank chromatograms to ensure that all peaks are accounted for.	<input checked="" type="checkbox"/>
Check that all compounds not called are crossed off, initialed and dated on quantitation reports.	<input checked="" type="checkbox"/>
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	<input checked="" type="checkbox"/>
Compare initial curves to continuing curve to make sure correct curves are included.	<input checked="" type="checkbox"/>
Verify dates on curves.	<input checked="" type="checkbox"/>
Verify that extra compound initial calibration and continuing are included.	<input checked="" type="checkbox"/>
Verify that a continuous calibration check is run every 12 hrs for 8000 series and CLP and every 24hrs for 600 series	<input checked="" type="checkbox"/>
Check that the criteria is met on the initial and continuing calibrations.	<input checked="" type="checkbox"/>
20% RSD for initial calibration and 15% for continuing calibration for 8000 series,	<input checked="" type="checkbox"/>
25% for CLP and 10% RSD and Table on SOP for continuing for 600 series	<input checked="" type="checkbox"/>
Verify a closing check is analyzed for each analytical sequence	<input checked="" type="checkbox"/>
Verify that the concentration of the CCC is varied	<input checked="" type="checkbox"/>
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	<input checked="" type="checkbox"/>
Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.	<input checked="" type="checkbox"/>
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).	<input checked="" type="checkbox"/>
Verify surrogates reported to the quantitation reports.	<input checked="" type="checkbox"/>
SPIKES:	
Check that appropriate sample is on the spike recovery form.	<input checked="" type="checkbox"/>
Verify that the correct spike sample is being reported for that batch.	<input checked="" type="checkbox"/>
Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).	<input checked="" type="checkbox"/>
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	<input checked="" type="checkbox"/>
Verify spike recoveries to quantitation reports.	<input checked="" type="checkbox"/>
Verify that a blank spike was analyzed for each batch of 20 samples.	<input checked="" type="checkbox"/>
Verify that the blank spike meets QC requirements (70-130%).	<input checked="" type="checkbox"/>
If any values outside of QC limits exist on MS/MSD, was Blank Spike used?	<input checked="" type="checkbox"/>

Non-conformances / Comments: \_\_\_\_\_

SAMPLES:

ITEM

Completed

Check that all manual integrations are initialed, dated and justified.  
Check that the correct sample matrix and units are on the result form.  
Check quant report for targeted compounds called and verify quantitation  
(be sure to take moisture and dilutions into account).  
Check to ensure that compounds which exceeds the linear range have been, diluted,  
re-analyzed, and quanted from the dilution.  
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.  
Verify reporting limits for extra compounds.  
Check chromatograms to ensure that all peaks are accounted for.  
Check if any of the data requires a footnote.  
Check that the samples were analyzed / extracted within their holding time.

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Non - Conformance / Comments: \_\_\_\_\_

Peer Review Signature: \_\_\_\_\_

Date: Aug 12, 2002

TECHNICAL SUPERVISOR REVIEW:

ITEM

Completed

Check for compliance with the Method and project specific requirements.  
Check the report for completeness.  
Check the information in the case narrative.  
Check the results for reasonableness.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Technical Supervisor Review Signature: \_\_\_\_\_

Date: 08/12/02

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARYCHEMTECH PROJECT LAB NUMBER: 3425 MATRIX: TCIP  
Herb METHOD: 8151

- |  | YES       | NA        | NO        |
|--|-----------|-----------|-----------|
| 1. Chromatograms Labeled/Compounds Identified.   | <u>✓</u>  | <u>  </u> | <u>  </u> |
| 2. Standards Summary Submitted   | <u>✓</u>  | <u>  </u> | <u>  </u> |
| 3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD | <u>✓</u>  | <u>  </u> | <u>  </u> |
| 4. Blank Contamination - If yes, list compounds and concentrations in each blank:  | <u>  </u> | <u>  </u> | <u>✓</u>  |
| <hr/>  |           |           |           |
| 5. Surrogate Recoveries Meet Criteria  | <u>✓</u>  | <u>  </u> | <u>  </u> |
| If not met, list those compounds and their recoveries which fall outside the acceptable ranges.  |           |           |           |
| <hr/>  |           |           |           |
| 6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria.   | <u>✓</u>  | <u>  </u> | <u>  </u> |
| If not met, list those compounds and their recoveries which fall outside the acceptable range.   |           |           |           |
| <hr/>  |           |           |           |
| 7. Retention Time Shift Meet Criteria (if applicable)  | <u>✓</u>  | <u>  </u> | <u>  </u> |
| 8. Extraction Holding Time Met   | <u>✓</u>  | <u>  </u> | <u>  </u> |
| If not met, list number of days exceeded for each sample.  |           |           |           |
| <hr/>  |           |           |           |
| 9. Analysis Holding Time Met   | <u>✓</u>  | <u>  </u> | <u>  </u> |
| If not met, list those compounds and their recoveries which fall outside the acceptable range.   |           |           |           |

Additional Comments:   Bonny  
Analyst RQA REVIEW  
Document Control # A30400278/8/02  
Date8/19/02  
Date

Page 1 of 1



PEER REVIEW CHECKLIST FOR GC DATA

Fraction: TCIP Herb

Project #: 3425

Sample Numbers: 1

QA DATA:

ITEM

Completed

Check instrument log for samples in batch. Highlights.

Make sure correct lab numbers are listed on all data.

Check Chain Custody and Login Sheet for project specific information.

Check that all manual integrations are initialed and dated.

Verify that the retention time of every peak of interest meet the criteria for window (RT  $\pm$  3 times the standard deviation of the mean absolute value or default to 0.03 minutes.)

BLANKS:

Check quant report for compounds called and quantitation.

Check if any compounds need to be flagged with a J.

Check that blank meets contamination criteria.

Check blank chromatograms to ensure that all peaks are accounted for.

Check that all compounds not called are crossed off, initialed and dated on quantitation reports.

CALIBRATION:

Check that the proper initial and continuing calibration forms are included.

Compare initial curves to continuing curve to make sure correct curves are included.

Verify dates on curves.

Verify that extra compound initial calibration and continuing are included.

Verify that a continuous calibration check is run every 12 hrs for 8000 series and CLP and every 24hrs for 600 series

Check that the criteria is met on the initial and continuing calibrations.

20% RSD for initial calibration and 15% for continuing calibration for 8000 series,

25% for CLP and 10% RSD and Table on SOP for continuing for 600 series

Verify a closing check is analyzed for each analytical sequence

Verify that the concentration of the CCC is varied

SURROGATES:

Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).

Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.

Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).

Verify surrogates reported to the quantitation reports.

SPIKES:

Check that appropriate sample is on the spike recovery form.

Verify that the correct spike sample is being reported for that batch.

Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).

Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Verify spike recoveries to quantitation reports.

Verify that a blank spike was analyzed for each batch of 20 samples.

Verify that the blank spike meets QC requirements (70-130%).

If any values outside of QC limits exist on MS/MSD, was Blank Spike used?



Non-conformances / Comments: \_\_\_\_\_

SAMPLES:  
ITEM

Completed

Check that all manual integrations are initialed, dated and justified. ☒

Check that the correct sample matrix and units are on the result form. ☒

Check quant report for targeted compounds called and verify quantitation (be sure to take moisture and dilutions into account). ☒

Check to ensure that compounds which exceeds the linear range have been, diluted, re-analyzed, and quanted from the dilution. ☒

Check that reporting limits are typical and if not (reason is not apparent) are footnoted. ☒

Verify reporting limits for extra compounds. ☒

Check chromatograms to ensure that all peaks are accounted for. ☒

Check if any of the data requires a footnote. ☒

Check that the samples were analyzed / extracted within their holding time. ☒

Non - Conformance / Comments: \_\_\_\_\_

Peer Review Signature: \_\_\_\_\_

Date: 8/8/02

TECHNICAL SUPERVISOR REVIEW:

ITEM

Completed

Check for compliance with the Method and project specific requirements. \_\_\_\_\_

Check the report for completeness. \_\_\_\_\_

Check the information in the case narrative. \_\_\_\_\_

Check the results for reasonableness. \_\_\_\_\_

Technical Supervisor Review Signature: \_\_\_\_\_

Date: 08/09/02

PEER REVIEW CHECKLIST FOR GC DATA

Fraction: Finger Print

Project #: P3425

Sample Numbers: 01

QA DATA:

ITEM

Completed

Check instrument log for samples in batch. Highlights.

Make sure correct lab numbers are listed on all data.

Check Chain Custody and Login Sheet for project specific information.

Check that all manual integrations are initialed and dated.

Verify that the retention time of every peak of interest meet the criteria for window (RT  $\pm$  3 times the standard deviation of the mean absolute value or default to 0.03 minutes.)

BLANKS:

Check quant report for compounds called and quantitation.

Check if any compounds need to be flagged with a J.

Check that blank meets contamination criteria.

Check blank chromatograms to ensure that all peaks are accounted for.

Check that all compounds not called are crossed off, initialed and dated on quantitation reports.

CALIBRATION:

Check that the proper initial and continuing calibration forms are included.

Compare initial curves to continuing curve to make sure correct curves are included.

Verify dates on curves.

Verify that extra compound initial calibration and continuing are included.

Verify that a continuous calibration check is run every 12 hrs for 8000 series and CLP and every 24hrs for 600 series

Check that the criteria is met on the initial and continuing calibrations.

20% RSD for initial calibration and 15% for continuing calibration. for 8000 series,

25% for CLP and 10% RSD and Table on SOP for continuing for 600 series

Verify a closing check is analyzed for each analytical sequence

Verify that the concentration of the CCC is varied

SURROGATES:

Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).

Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.

Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).

Verify surrogates reported to the quantitation reports.

SPIKES:

Check that appropriate sample is on the spike recovery form.

Verify that the correct spike sample is being reported for that batch.

Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).

Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Verify spike recoveries to quantitation reports.

Verify that a blank spike was analyzed for each batch of 20 samples.

Verify that the blank spike meets QC requirements (70-130%).

If any values outside of QC limits exist on MS/MSD, was Blank Spike used?

Non-conformances / Comments: \_\_\_\_\_

SAMPLES;  
ITEM

Completed

Check that all manual integrations are initialed, dated and justified.  
Check that the correct sample matrix and units are on the result form.  
Check quant report for targeted compounds called and verify quantitation  
(be sure to take moisture and dilutions into account).  
Check to ensure that compounds which exceeds the linear range have been, diluted,  
re-analyzed, and quanted from the dilution.  
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.  
Verify reporting limits for extra compounds.  
Check chromatograms to ensure that all peaks are accounted for.  
Check if any of the data requires a footnote.  
Check that the samples were analyzed / extracted within their holding time.

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Non - Conformance / Comments: \_\_\_\_\_

Peer Review Signature: \_\_\_\_\_

Date: 08/05/02

TECHNICAL SUPERVISOR REVIEW:

ITEM

Completed

Check for compliance with the Method and project specific requirements.  
Check the report for completeness.  
Check the information in the case narrative.  
Check the results for reasonableness.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Technical Supervisor Review Signature: \_\_\_\_\_

Date: Aug 05, 2002

CHEMTECH PROJECT LAB NUMBER: P325 MATRIX: Soil METHOD: 8015

YES      NA      NO

- |  |    |  |  |
|--|----|--|--|
| 1. Chromatograms Labeled/Compounds Identified.   | 11 |  |  |
| 2. Standards Summary Submitted   |    |  |  |
| 3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD | 1  |  |  |
| 4. Blank Contamination - If yes, list compounds and concentrations in each blank:  |    |  |  |
| <hr/>  |    |  |  |
| 5. Surrogate Recoveries Meet Criteria  | 1  |  |  |
| If not met, list those compounds and their recoveries which fall outside the acceptable ranges.  |    |  |  |
| <hr/>  |    |  |  |
| 6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria.   | 1  |  |  |
| If not met, list those compounds and their recoveries which fall outside the acceptable range.   |    |  |  |
| <hr/>  |    |  |  |
| 7. Retention Time Shift Meet Criteria (if applicable)  | 1  |  |  |
| 8. Extraction Holding Time Met   |    |  |  |
| If not met, list number of days exceeded for each sample.  |    |  |  |
| <hr/>  |    |  |  |
| 9. Analysis Holding Time Met   | 1  |  |  |
| If not met, list those compounds and their recoveries which fall outside the acceptable range.   |    |  |  |

Additional Comments:

Analyst

Date \_\_\_\_\_

## OA REVIEW

Date \_\_\_\_\_

Document Control # A3040027

Page 1 of 1

# CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

## METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3425 NT MATRIX: trp

METHOD: SW846

	<u>NA</u>	<u>NO</u>	<u>YES</u>
1. Calibration Summary meet criteria.	<u>      </u>	<u>      </u>	<u>  /  </u>
2. ICP Interference Check Sample Results Summary Submitted	<u>      </u>	<u>      </u>	<u>  /  </u>
Meet criteria Blank Contamination			
3. Serial Dilution Summary Submitted (if applicable)meet criteria	<u>      </u>	<u>      </u>	<u>  /  </u>
4. Laboratory Control Sample Summary Submitted (if applicable)	<u>      </u>	<u>      </u>	<u>  /  </u>
5. Blank Contamination	<u>      </u>	<u>  /  </u>	<u>      </u>
If YES, list compounds and concentrations in each blank:			

6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria                 /    
If not met, list those compounds and their recoveries which fall outside of the acceptance range:

7. Sample Duplicate Analysis Meet QC Criteria:                 /    
If not met, list those compounds and their % differences which fall outside of the acceptance range:

8. Digestion Holding Time Met                 /    
If not met, list number of days exceeded for each sample:

9. Analysis Holding Time Met                 /    
If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Dante Roquel  
Supervisor

8/16/02  
Date

PC  
QA REVIEW

8/19/02  
Date

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3425

MATRIX: solid

METHOD: SW846

NA NO YES

1. Blank Contamination

✓      

If YES, list compounds and concentrations in each blank:

\_\_\_\_\_

2. Matrix Spike Recoveries Meet Criteria

      ✓

If not met, list those compounds and their recoveries which fall outside of the acceptance range:

\_\_\_\_\_

3. Sample Duplicate Analysis Meet QC Criteria:

      ✓

If not met, list those compounds and their % differences which fall outside of the acceptance range:

\_\_\_\_\_

4. Analysis Holding Time Met

      ✓

If not met, list number of days exceeded for each sample:

\_\_\_\_\_

ADDITIONAL COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Supervisor

[Signature]

QA REVIEW

[Signature]

Date

8/12/02

8/19/02

Date

## TCLP Volatiles

SW-846

SDG No.: P3425

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02

Date Received: 7/23/02

Date Analyzed: 8/2/02

Matrix: TCLP

File ID: VB080115.D

Analytical Run ID: VB071702

Dilution: 5

Instrument ID: MSVOAB

Analytical Method: 8260

Associated Blank: VBB0801W1

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

S 3/6/02

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>						
Vinyl chloride	75-01-4	< 4.0	U	25	4.0	ug/L
1,1-Dichloroethene	75-35-4	< 3.4	U	25	3.4	ug/L
Chloroform	67-66-3	< 3.0	U	25	3.0	ug/L
1,2-Dichloroethane	107-06-2	< 2.8	U	25	2.8	ug/L
2-Butanone	78-93-3	< 12	U	25	12	ug/L
Carbon Tetrachloride	56-23-5	< 2.4	U	25	2.4	ug/L
Trichloroethene	79-01-6	< 3.6	U	25	3.6	ug/L
Benzene	71-43-2	< 3.6	U	25	3.6	ug/L
Tetrachloroethene	127-18-4	< 3.5	U	25	3.5	ug/L
Chlorobenzene	108-90-7	< 3.9	U	25	3.9	ug/L
<b>SURROGATES</b>						
1,2-Dichloroethane-d4	79-00-5	53.14	106 %	68 - 135		SPK: 50
Toluene-d8	2037-26-5	46.94	94 %	70 - 125		SPK: 50
4-Bromofluorobenzene	460-00-4	47.68	95 %	70 - 125		SPK: 50
Dibromofluoromethane		46.52	93 %	70 - 125		SPK: 50
<b>INTERNAL STANDARDS</b>						
Pentafluorobenzene	363-72-4	892581	7.52			
1,4-Difluorobenzene	540-36-3	1186778	8.74			
Chlorobenzene-d5	3114-55-4	939465	14.43			
1,4-Dichlorobenzene-d4	3855-82-1	618508	19.77			

## SVOC-Chemtech Full

SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02

Date Received: 7/23/02

Date Analyzed: 7/24/02

Matrix: SOIL

Date Extracted: 7/23/02

File ID: BD001179.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 1.1

Extract Vol: 10000

Injection Vol: 2

% Moisture: 4

Associated Blank: PB072302-20B

Parameter	Concentration	C	RDL	MDL	Units
-----------	---------------	---	-----	-----	-------

## TARGETS

Phenol	360000		94000	9400	ug/Kg
is(2-Chloroethyl)ether	< 11000	U	94000	11000	ug/Kg
2-Chlorophenol	< 10000	U	94000	10000	ug/Kg
1,2-Dichlorobenzene	< 9400	U	94000	9400	ug/Kg
1,3-Dichlorobenzene	< 11000	U	94000	11000	ug/Kg
1,4-Dichlorobenzene	< 9400	U	94000	9400	ug/Kg
Benzyl Alcohol	< 9400	U	94000	9400	ug/Kg
2-Methylphenol	40000	J	94000	9400	ug/Kg
2,2'-oxybis(1-chloropropane)	< 9400	U	94000	9400	ug/Kg
2,4-Dimethylphenols	43000	J	94000	17000	ug/Kg
N-Nitroso-di-n-propylamine	< 9400	U	94000	9400	ug/Kg
Hexachloroethane	< 10000	U	94000	10000	ug/Kg
Nitrobenzene	< 9400	U	94000	9400	ug/Kg
Isophorone	< 9400	U	94000	9400	ug/Kg
2-Nitrophenol	< 10000	U	94000	10000	ug/Kg
2,4-Dimethylphenol	30000	J	94000	22000	ug/Kg
bis(2-Chloroethoxy)methane	< 9400	U	94000	9400	ug/Kg
2,4-Dichlorophenol	< 12000	U	94000	12000	ug/Kg
2,4-Trichlorobenzene	< 11000	U	94000	11000	ug/Kg
Benzoic acid	< 9500	U	94000	9500	ug/Kg
Naphthalene	< 11000	U	94000	11000	ug/Kg
Chloroaniline	< 11000	U	94000	11000	ug/Kg
Hexachlorobutadiene	< 14000	U	94000	14000	ug/Kg
Chloro-3-methylphenol	< 10000	U	94000	10000	ug/Kg
Methylnaphthalene	< 11000	U	94000	11000	ug/Kg
Hexachlorocyclopentadiene	< 36000	U	94000	36000	ug/Kg
2,4,6-Trichlorophenol	< 9400	U	94000	9400	ug/Kg
2,4,5-Trichlorophenol	< 9400	U	240000	9400	ug/Kg
2-Chloronaphthalene	< 11000	U	94000	11000	ug/Kg
Nitroaniline	< 9400	U	240000	9400	ug/Kg
Dimethylphthalate	< 9400	U	94000	9400	ug/Kg



## SVOC-Chemtech Full

SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02

Date Received: 7/23/02

Date Analyzed: 7/24/02

Matrix: SOIL

Date Extracted: 7/23/02

File ID: BD001179.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 1.1

Extract Vol: 10000

Injection Vol: 2

% Moisture: 4

Associated Blank: PB072302-20B

Parameter	Concentration	C	RDL	MDL	Units
<b>1 TARGETS</b>					
Acenaphthylene	< 11000	U	94000	11000	ug/Kg
2,6-Dinitrotoluene	< 9400	U	94000	9400	ug/Kg
3-Nitroaniline	< 11000	U	240000	11000	ug/Kg
Acenaphthene	< 11000	U	94000	11000	ug/Kg
4-Dinitrophenol	< 19000	U	240000	19000	ug/Kg
4-Nitrophenol	< 10000	U	240000	10000	ug/Kg
2-Benzofuran	15000	J	94000	9400	ug/Kg
2,4-Dinitrotoluene	< 10000	U	94000	10000	ug/Kg
Diethylphthalate	< 9400	U	94000	9400	ug/Kg
2-Chlorophenyl-phenylether	< 11000	U	94000	11000	ug/Kg
Fluorene	< 10000	U	94000	10000	ug/Kg
4-Nitroaniline	< 22000	U	240000	22000	ug/Kg
2,6-Dinitro-2-methylphenol	< 11000	U	240000	11000	ug/Kg
N-Nitrosodiphenylamine	< 19000	U	94000	19000	ug/Kg
Azobenzene	< 10000	U	94000	10000	ug/Kg
2-Bromophenyl-phenylether	< 12000	U	94000	12000	ug/Kg
Hexachlorobenzene	< 10000	U	94000	10000	ug/Kg
Pentachlorophenol	< 18000	U	240000	18000	ug/Kg
Benanthrene	< 9400	U	94000	9400	ug/Kg
Anthracene	< 12000	U	94000	12000	ug/Kg
Di-n-butylphthalate	< 11000	U	94000	11000	ug/Kg
Fluoranthene	< 9400	U	94000	9400	ug/Kg
Benzidine	< 10000	U	94000	10000	ug/Kg
Pyrene	< 9400	U	94000	9400	ug/Kg
Diethylbenzylphthalate	< 9400	U	94000	9400	ug/Kg
3,3'-Dichlorobenzidine	12000	J	94000	9400	ug/Kg
Benzo(a)anthracene	< 9400	U	94000	9400	ug/Kg
Chrysene	< 15000	U	94000	15000	ug/Kg
bis(2-Ethylhexyl)phthalate	< 9400	U	94000	9400	ug/Kg
Di-n-octyl phthalate	< 14000	U	94000	14000	ug/Kg
Benzo(b)fluoranthene	< 9400	U	94000	9400	ug/Kg

## SVOC-Chemtech Full

SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02

Date Received: 7/23/02

Date Analyzed: 7/24/02

Matrix: SOIL

Date Extracted: 7/23/02

File ID: BD001179.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 1.1

Extract Vol: 10000

Injection Vol: 2

% Moisture: 4

Associated Blank: PB072302-20B

Parameter	Concentration	C	RDL	MDL	Units
-----------	---------------	---	-----	-----	-------

## TARGETS

Benzo(k)fluoranthene	< 24000	U	94000	24000	ug/Kg
Benzo(a)pyrene	< 14000	U	94000	14000	ug/Kg
Indeno(1,2,3-cd)pyrene	< 15000	U	94000	15000	ug/Kg
Benz(a,h)anthracene	< 14000	U	94000	14000	ug/Kg
Benzo(g,h,i)perylene	< 12000	U	94000	12000	ug/Kg

## SURROGATES

Fluorophenol	115	38 %	25 - 121	SPK: 300
Phenol-d5	142	47 %	24 - 113	SPK: 300
Nitrobenzene-d5	133	66 %	23 - 120	SPK: 200
Fluorobiphenyl	116	58 %	30 - 116	SPK: 200
2,4,6-Tribromophenol	120	40 %	19 - 122	SPK: 300
Biphenyl-d14	132	66 %	18 - 137	SPK: 200

## INTERNAL STANDARDS

4-Dichlorobenzene-d4	104447	6.27
Naphthalene-d8	294564	8.75
Acenaphthene-d10	198213	12.51
Benanthrene-d10	274302	15.70
Brysene-d12	203778	21.54
Perylene-d12	153240	24.47

## POTENTIALLY IDENTIFIED COMPOUNDS

Phenol, 2,2-methylenebis-	190000	J	17.58	ug/Kg
Benzene, 1-methoxy-3-phenoxy-	690000	J	17.95	ug/Kg
Unknown	23000	J	18.24	ug/Kg
Unknown	37000	J	18.31	ug/Kg
Unknown	61000	J	19.00	ug/Kg
Unknown	33000	J	19.02	ug/Kg
Unknown	83000	J	19.03	ug/Kg

TCLP BNA

SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02

Date Received: 7/23/02

Date Analyzed: 8/6/02

Matrix: WATER

Date Extracted: 8/1/02

File ID: BD001532.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: BD080502

Sample Wt/Wol: 100.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 100

Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
-----------	---------------	---	-----	-----	-------

TARGETS

Pyridine	< 11	U	99	11	ug/L
Dichlorobenzene	< 9.9	U	99	9.9	ug/L
2-Methylphenol	760		99	9.9	ug/L
2,4-Dimethylphenols	680		99	18	ug/L
1,2-Dichloroethane	< 11	U	99	11	ug/L
Nitrobenzene	< 9.9	U	99	9.9	ug/L
1,2-Dichlorobutadiene	< 15	U	99	15	ug/L
2,4,6-Trichlorophenol	< 9.9	U	250	9.9	ug/L
2,4,6-Trichlorophenol	< 9.9	U	99	9.9	ug/L
1,3-Dinitrotoluene	< 11	U	99	11	ug/L
1,2,4-Trichlorobenzene	< 11	U	99	11	ug/L
1,2,4-Trichlorophenol	< 19	U	250	19	ug/L

PROXIMATES

2-Fluorophenol	79.76	27 %	21 - 100	SPK: 300
2-Nol-d5	56.18	19 %	10 - 94	SPK: 300
2-Nitrobenzene-d5	173.13	87 %	35 - 114	SPK: 200
2-Fluorobiphenyl	176.74	88 %	43 - 116	SPK: 200
2,6-Tribromophenol	202.62	68 %	10 - 123	SPK: 300
2-Phenyl-d14	247.03	124 %	33 - 141	SPK: 200

INTERNAL STANDARDS

2,4-Dichlorobenzene-d4	47469	5.94
2-Naphthalene-d8	131262	8.40
2-Naphthalene-d10	104211	12.14
2-Nitroanthrene-d10	160932	15.30
2-Nitrobenzene-d12	110388	21.18
2-Nitrobenzene-d12	74811	24.08

TCLP Pesticide  
SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02

Date Analyzed: 8/3/02

Date Extracted: 8/1/02

Dilution: 1

Analytical Method: 8081

% Moisture: 100.0

Date Received: 7/23/02

Matrix: TCLP

File ID: 3PS6886.D

Instrument ID: ECD3

Analytical Run ID: 3PS0729

Associated Blank: PB080202-10B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
gamma-BHC (Lindane)	< 0.09	U	0.50	0.09	ug/L
Heptachlor	< 0.07	U	0.50	0.07	ug/L
Heptachlor epoxide	< 0.08	U	0.50	0.08	ug/L
Endrin	< 0.22	U	0.50	0.22	ug/L
Methoxychlor	< 0.08	U	0.50	0.08	ug/L
Toxaphene	< 1.200	U	5.0	1.200	ug/L
Chlordane	< 1.300	U	5.0	1.300	ug/L
<b>SURROGATES</b>					
Decachlorobiphenyl	10.9	54 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	20.15	101 %	30 - 150		SPK: 20

## TCLP Herbicides

SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02

Date Analyzed: 8/6/02

Date Extracted: 8/3/02

Dilution: 1

Analytical Method: TCLP Herbicide

% Moisture: 100.0

Date Received: 7/23/02

Matrix: TCLP

File ID: 6PC0844.D

Instrument ID: ECD5

Analytical Run ID: 6PC0802

Associated Blank: PB080502-14 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
2,4-D	< 0.24	U	1.0	0.24	ug/L
2,4,5-TP (Silvex)	< 0.09	U	1.0	0.09	ug/L
<b>SURROGATES</b>					
2,4-DCAA	37.3	75 %	24 - 151		SPK: 50

TABULATED ANALYTICAL REPORT  
QUALITATIVE GC FINGERPRINT BY 8015

CLIENT: PMK GROUP  
CLIENT PROJECT : Veterans Memorial Pa  
REPORT DATE 8/5/02  
PROJECT RECEIVED DATE : 7/23/02  
ANALYSIS DATE 7/23/02  
EXT. DATE: 7/23/02  
MATRIX: SOIL  
LAB PROJECT: P3425

CLIENT ID  
GC-2

FILE ID  
BA5790

LAB ID  
P3425-01

FUEL TYPE  
E

**COMMENTS:**

FT: FUEL TYPE

MDL= METHOD DETECTION LIMIT

A=GASOLINE

B= KERSOENE WITH SOME UNKNOWN FUEL OIL

C= #2 FUEL OIL

D= #4 FUEL OIL

E= NO CALIBRATED FUEL TYPE DETECTED

F=KEROSENE

H= #6 FUEL OIL

P= CLIENT KNOWN FUEL PRODUCT

KW KEROSENE WEATHERED

PI= PAINT THINNER

MS= MINERAL SPIRITS

< = LESS THAN

J= 10 W LUBRICATING OIL

K= 20 W LUBRICATING OIL

L= 30W LUBRICATING OIL

M= 40 W LUBRICATING OIL

CW= #2 FUEL OIL WEATHERED

DW= #4 FUEL OIL WEATHERED

HW= #6 FUEL OIL, WEATHERED

ND = NOT DETECTED (CONC)

CS = CLIENT STANDARD

N = JET FUEL STANDARD

S= DIESEL

CT=COAL TAR

**METALS**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: PMK Group

SDG No.: P3425

Method Type: SW846

Sample ID: P3425-01

Client ID: GC-2

Contract: PMK Group

Lab Code: CHEMED

Case No.:

SAS No.: P3425

Matrix: TCLP

Date Received: 7/23/02

Level: LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-38-2	Arsenic	45.0	ug/L	U		P	45.0	P1	P180502
40-39-3	Barium	268	ug/L	B		P	99.0	P1	P180502
7440-43-9	Cadmium	8.0	ug/L	U		P	8.0	P1	P180502
40-47-3	Chromium	14.0	ug/L	U		P	14.0	P1	P180502
7439-92-1	Lead	30.0	ug/L	U		P	30.0	P1	P180502
7139-97-6	Mercury	2.0	ug/L	U		CV	2.0	CV1	080602A
82-49-2	Selenium	9.4	ug/L	B		P	9.0	P1	P180502
7440-22-4	Silver	37.0	ug/L	U		P	37.0	P1	P180502

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

## GENERAL CHEMISTRY Analyses Data Sheet

SDG No.: P3425

Sample ID: P3425-01

Client ID: GC-2

Contract: PMK Group

Date Collected: 7/23/02

Date Received: 7/23/02

Matrix: SOIL

% Solids: 95.80

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Reactive Cyanide	7.3.3.2	< 10	mg/kg	U		1	7/29/02
Reactive Sulfide	7.3.4.2	< 40.0	mg/Kg	U		1	7/29/02
Corrosivity (as pH)	EPA 9045C	7.4	pH			1	7/31/02
Ignitability	EPA 1010	No	Ignite			1	8/2/02

Comments:





**DATA PACKAGE FOR  
VOLATILE ORGANICS  
SEMI-VOLATILE ORGANICS  
GC SEMI-VOLATILES  
METALS  
GENERAL CHEMISTRY**

**PROJECT NAME: Veterans Memorial Park**

**PMK GROUP  
65 JACKSON DRIVE  
CRANFORD, NJ 07016  
9084978900**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**P3702  
Devang Patel**

## COVER PAGE

Order P3702

ProjectID: Veterans Memorial Park

CustomerName PMK Group

## LAB SAMPLE NO.

P3702-01

P3702-02

P3702-03

P3702-04

P3702-05

P3702-06

P3702-07

P3702-08

P3702-09

P3702-10

P3702-11

## CLIENT SAMPLE NO

TP-31

TP-33

TP-34

TP-6D

TP-6

TP-4

TP-4D

TP-13

TP-10

TP-10D

TB080902

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: Carole Collins Name: CAROLE COLLINS  
Date: 8/27/02 Title: QA/QC

## QA/QC DELIVERABLES CHECKLIST

Project Number: P3702

THIS FORM HAS BEEN COMPLETED BY CHEMTECH LABORATORY AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.

The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.

	Yes	NA
I. Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	<input checked="" type="checkbox"/>	<input type="checkbox"/>
II. Table of Contents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
III. Chain of Custody Documents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IV. Methodology Summaries	<input checked="" type="checkbox"/>	<input type="checkbox"/>
V. Laboratory Chronicle and Hold Time Checks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VI. Non-Conformance Summary	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VII. Tabulated Analytical Results	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VIII. Initial and Continuing Calibration Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IX. Tune and Internal Standard Area Summaries (GC/MS)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
X. Quality Control Summary Reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XI. Surrogate Recovery Summary	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XII. Raw Data Chromatogram, Blank, Samples and QC when applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XIII. Subcontract Data	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Carole Collins  
QA/QC Data Reviewer

8/27/02  
Date

☐ 110 Route 4  
Englewood, NJ 07631  
Phone: 201 566 7400 Fax: 201 567 3111

☐ 284 Sheffield Street  
Mountainside, NJ 07092  
Phone: 732 366 1100 Fax: 732 366 1111

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## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax (908) 789-8922

www.chemtech.net

CHEMTECH JOB NO.: P3702

CHEMTECH QUOTE NO.:

CLIENT INFORMATION				PROJECT INFORMATION				BILLING INFORMATION											
REPORT TO BE SENT TO:																			
COMPANY: PMK				PROJECT NAME: Veterans Memorial Park				BILL TO: PO #:											
ADDRESS: 65 Jackson Drive				PROJECT NO.: 0502014				ADDRESS: PMK											
CITY: CAMFORD STATE: NJ ZIP: 07016				PROJECT MANAGER: Devane Patel				CITY: STATE: ZIP:											
ATTENTION: Devane Patel				LOCATION: South Plainfield				ATTENTION: PHONE:											
PHONE: 908-497-8900 FAX: 908-497-8943				PHONE: FAX:				<div style="border: 1px solid black; padding: 5px; display: inline-block;">ANALYSIS</div>											
DATA TURNAROUND INFORMATION				DATA DELIVERABLE INFORMATION															
FAX: _____ DAYS * HARD COPY: Standard _____ DAYS * EDD: _____ DAYS * * TO BE APPROVED BY CHEMTECH ** NORMAL TURNAROUND TIME - 14 DAYS				<input type="checkbox"/> RESULTS ONLY <input type="checkbox"/> NY STATE CATEGORY A <input type="checkbox"/> RESULTS PLUS QC <input type="checkbox"/> NY STATE CATEGORY B <input type="checkbox"/> REGULATORY FORMAT, STATE: <input checked="" type="checkbox"/> NEW JERSEY REDUCED DELIVERABLES <input type="checkbox"/> CLP <input checked="" type="checkbox"/> EDD FORMAT: H2Cite															
				PP-140 JOTIC															
								1 2 3 4 5 6 7 8 9											
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS ← Specify Preservatives A - HCl    B - HNO <sub>3</sub> C - H <sub>2</sub> SO <sub>4</sub> D - NaOH E - ICE    F - Other		
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9			
1. 01	TP-31	Soil		X	8/9/02	10:32	2	X	X										
2. 02	TP-33	Soil		P		11:20	2	X	X										
3. 03	TP-34	Soil		X		11:38	2	X	X										
4. 04	TP-6d	Soil		X		12:10	2	X	X										
5. 05	TP-6	Soil		X		12:13	2	X	X										
6. 06	TP-4	Soil		P		13:15	2	X	X										
7. 07	TP-4d	Soil		P		13:20	2	X	X										
8. 08	TP-13	Soil				13:45	2	X	X										
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY																			
RELINQUISHED BY SAMPLER:				DATE/TIME:				RECEIVED BY:				Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Temp. of Cooler 200 Comments:							
1. [Signature]				8/9/02 11:15				1. George Steffen											
RELINQUISHED BY:				DATE/TIME:				RECEIVED BY:											
2. [Signature]								2. [Signature]				SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input type="checkbox"/> OVERNIGHT CHEMTECH: <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT Shipment Complete: <input type="checkbox"/> YES <input type="checkbox"/> NO							
RELINQUISHED BY:				DATE/TIME:				RECEIVED FOR LAB BY:											
3. George Steffen				8/9/02 4:40				3. George Steffen				Page 1 of 2							

**CHEMTECH****CHAIN OF CUSTODY RECORD**

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax (908) 789-8922

www.chemtech.net

CHEMTECH JOB NO.: P3702

CHEMTECH QUOTE NO.:

CLIENT INFORMATION				PROJECT INFORMATION				BILLING INFORMATION										
REPORT TO BE SENT TO:																		
COMPANY: <u>PINK</u>				PROJECT NAME: <u>Veterans Memorial</u>				BILL TO: <u>PINK</u> PO #:										
ADDRESS: <u>65 Jackson Drive</u>				PROJECT NO.: <u>0502014</u>				ADDRESS: <u>PINK</u>										
CITY: <u>CRANFORD</u> STATE: <u>NJ</u> ZIP: <u>07010</u>				PROJECT MANAGER: <u>DeVong Patel</u>				CITY: STATE: ZIP:										
ATTENTION: <u>DeVong Patel</u>				LOCATION: <u>South Plainfield</u>				ATTENTION: PHONE:										
PHONE: <u>908-497-8500</u> FAX: <u>908-497-8548</u>				PHONE: FAX:														
DATA TURNAROUND INFORMATION				DATA DELIVERABLE INFORMATION				ANALYSIS										
FAX: <u>Standard</u> DAYS *				<input type="checkbox"/> RESULTS ONLY <input type="checkbox"/> NY STATE CATEGORY A <input type="checkbox"/> RESULTS PLUS QC <input type="checkbox"/> NY STATE CATEGORY B <input type="checkbox"/> REGULATORY FORMAT, STATE: <input checked="" type="checkbox"/> NEW JERSEY REDUCED DELIVERABLES <input type="checkbox"/> CLP <input checked="" type="checkbox"/> EDD FORMAT: <u>Aczsite</u>				<div style="transform: rotate(-45deg); font-weight: bold;">PP+40 VOT-10</div>										
HARD COPY: <u>Standard</u> DAYS *																		
EDD: <u>Standard</u> DAYS *																		
* TO BE APPROVED BY CHEMTECH																		
** NORMAL TURNAROUND TIME - 14 DAYS																		
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9		
1. <u>05</u>	<u>TP-10</u>	<u>Soil</u>			<u>8/9/02</u>	<u>14322</u>	<u>2</u>	<u>x</u>	<u>x</u>									← Specify Preservatives A - HCl    B - HNO <sub>3</sub> C - H <sub>2</sub> SO <sub>4</sub> D - NaOH E - ICE    F - Other
2. <u>10</u>	<u>TP-10d</u>	<u>✓</u>			<u>8/9/02</u>	<u>14422</u>	<u>2</u>	<u>x</u>	<u>x</u>									
3. <u>11</u>	<u>7B080902</u>	<u>Ag</u>			<u>8/9/02</u>		<u>1</u>		<u>x</u>									
4.																		
5.																		
6.																		
7.																		
8.																		
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY																		
RELINQUISHED BY: <u>George Stephens</u>		DATE/TIME: <u>8/9/02 4:15</u>		RECEIVED BY: <u>George Stephens</u>		Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Temp. of Cooler <u>2-0</u>												
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:		Comments:												
RELINQUISHED BY: <u>George Stephens</u>		DATE/TIME: <u>8/9/02 4:10</u>		RECEIVED FOR LAB BY: <u>George Stephens</u>		SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input type="checkbox"/> OVERNIGHT CHEMTECH: <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT Shipment Complete: <input type="checkbox"/> YES <input type="checkbox"/> NO												
Page <u>2</u> of <u>2</u>																		



**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following "Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
J	Indicates an estimated value. This flag is used: <ol style="list-style-type: none"><li>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)</li><li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.</li></ol>
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

- B If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
- U If the analyte was analyzed for, but not detected.
- E The reported value is estimated because of the presence of interference
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Addition (MSA).
- W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while absorbance is less than 50% of spike absorbance.
- \* Duplicate analysis not within control limits.
- + Correlation coefficient for the MSA is less than 0.995.
- \*\*\* Entering "S", "W " or " +" is mutually exclusive. NO combination of these qualifiers can appear in the same field for an analyte.

- M Method qualifiers
- "P" for ICP instrument
  - "A" for Flame AA
  - "PM" for ICP when Microwave Digestion is used
  - "AM" for flame AA when Microwave Digestion is used
  - "FM" for furnace AA when Microwave Digestion is used
  - "CV" for Manual Cold Vapor AA
  - "AV" for automated Cold Vapor AA
  - "CA" for MIDI-Distillation Spectrophotometric
  - "AS" for Semi -Automated Spectrophotometric
  - "C" for Manual Spectrophotometric
  - "T" for Titrimetric
  - "NR" for analyte not required to be analyzed

**METHODOLOGY**

## Volatile Organic by GC/MS

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\* Method 8260B

## Semi-Volatile Organic by GC/MS

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\* Method 8270C

## Semi-Volatile Extraction - Sonication Extraction

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\* Method 3550B

## Organochlorine Pesticides &amp; PCBs

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 8081/8082

## Antimony

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Arsenic

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Beryllium

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Cadmium

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Chromium

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Copper

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Lead

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Mercury

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 7471

## Nickel

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

# CHEMTECH

284 Sheffield Street, Mountainside 07092  
Tel: 908-789-8900 Fax: 908-789-8922

## Selenium

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Silver

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Thallium

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Zinc

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> Edition
- \*\*Method 6010B

## Phenolics

- \*EPA Methods for Chemical Analysis of Water and Wastes, March 1983
- \*\*Method 420.1

## Cyanide

- \*Test Methods for Evaluating Solid Wastes, SW846, 3<sup>rd</sup> edition
- \*\*Method 9012

- \* Indicates reference
- \*\* Indicates Methods

**LABORATORY CHRONICLE****CLIENT:** PMK GROUP**CLIENT PROJECT:** VETERANS MEMORIAL PARK**DATE RECEIVED:** 8/09/02**LABORATORY PROJECT:** P3702

<b>EXTRACTION DATE:</b>	8/14/02	SEMI-VOLATILE ORGANIC
	8/14/02	PESTICIDES
	8/14/02	PCBs
	8/20/02	METALS
	8/15/02	MERCURY

<b>SAMPLE DATE</b>	<b>ANALYSIS DATES</b>	<b>ANALYSIS</b>
8/09/02	8/19,20/02	VOLATILE ORGANIC
8/09/02	8/20,21,22/02	SEMI-VOLATILE ORGANIC
8/09/02	8/19,20/02	PESTICIDES
8/09/02	8/19,20/02	PCBs
8/09/02	8/26/02	METALS
8/09/02	8/16/02	MERCURY
8/09/02	8/17/02	CYANIDE
8/09/02	8/20/02	PHENOLICS

PEER REVIEW CHECKLIST FOR GCMS VOA DATA

Fraction: WOL

Project #: P3702

QA DATA:

Sample Numbers: \_\_\_\_\_

ITEM

Completed

Check instrument log for samples in batch. Highlights

Make sure correct lab numbers are listed on all data.

Check Chain of Custody and Login Sheet for project specific information.

Check that all manual integrations are initialed and dated.

TUNES:

Check that the proper tune is included and that the appropriate lab #s are listed on the tune.

Check that the tune meets the correct criteria.

Check that all samples were run within 12 hours for 8260B and CLP 24 hours for 624

BLANKS:

Check quant report for compounds called and quantitation.

Check if any compounds need to be flagged with a J.

Check that blank meets contamination criteria.

Check that appropriate lab numbers are reported on blank nontargeted summary sheet.

Check blank nontargeted results for proper cas #, retention time, compound name, concentration against spectra.

Check blank chromatograms to ensure that all peaks are accounted for.

Check that all compounds not called are crossed off, initialed and dated on quantitation reports and tics.

Check that spectra are included for all compounds called.

CALIBRATION:

Check that the proper initial and continuing calibration forms are included.

Compare initial curves to continuing curve to make sure correct curves are included. Verify dates on curves.

Verify that extra compound initial and continuing curves are included.

Check that SPCCS and CCCS meet criteria on the initial and continuing calibrations

Verify that a continuous calibration check is run every 12 hrs for 8260 and CLP, every 24hrs for 624 and every 8hrs for 524.

Check that the criteria is met on the initial and continuing calibrations.

15% RSD for initial calibration and 30% for continuing calibration for 8260.

35% RSD and for continuing for 624 use table 5. For CLP use table on exhibit D

(Up to 2 compounds allowed to fail.)

Verify that the concentration of the CCC is varied

SURROGATES:

Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).

Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.

Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).

Verify surrogates reported to the quantitation reports.

**SPIKES:**

- Verify that the correct spike sample is being reported for that batch.
- Check that the spike recoveries are reported in the appropriate form (i.e. water, soil).
- Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.
- Verify spike recoveries to quantitation reports.
- If any values outside of QC limits exist on MS/MSD, was Blank Spike used.
- Verify that the blank spike meets QC requirements (70-130%).

\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_

Non-conformances Comments: \_\_\_\_\_

**SAMPLES:**  
**ITEM**

Completed

- Check quant report for targeted compounds called, verify quantitation (be sure to take moisture and dilutions into account).
- Verify that the largest 10 - 15 non-target peaks are called.
- Check to ensure that compounds which exceed the linear range have been Re-analyzed, diluted and quanted from the dilution.
- Check that reporting limits typical and if not (and the reason is not apparent) are footnoted.
- Verify reporting limits for extra compounds.
- Check nontargeted results for proper CAS #, concentration, retention time, compounds need to be flagged with B or J.
- Check that spectra are included for all compounds called.
- Check chromatograms to ensure that all peaks are accounted for.
- Check if any of the data requires a footnote.
- Check that the samples were run within their holding time.

\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_

Non - Conformance Comments: \_\_\_\_\_

Peer Review Signature: 2M

Date: 8/21/2

**TECHNICAL SUPERVISOR REVIEW:**

**ITEM**

Completed

- Check for compliance with the Method and project specific requirements.
- Check the report for completeness.
- Check the information in the case narrative.
- Check the results for reasonableness.

\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_  
\_\_\_\_/\_\_\_\_

Technical Supervisor Review Signature Carole Collins Date: 8/27/02

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3702 MATRIX: Soil

METHOD: 8260

	<u>NA</u>	<u>NO</u>	<u>YES</u>
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)	_____	_____	<u>/</u>
2. GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)	_____	_____	<u>/</u>
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series	_____	_____	<u>/</u>
4. GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.	_____	_____	<u>/</u>
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds for 8260 and CLP	_____	_____	<u>/</u>
b. System Performance Check Compounds for 8260 and CLP	_____	_____	<u>/</u>

8260 CALIBRATION CRITERIA

<u>SPCC Compounds</u>	<u>MIN RF</u>	<u>CCC Compounds</u>
Chloromethane	0.1	1,1-Dichloroethene
1,1-Dichloroethane	0.1	Chloroform
Bromoform	0.1	1,2-Dichloropropane
Chlorobenzene	0.3	Toluene
1,1,2,2-Tetrachloroethane	0.3	Ethylbenzene
		Vinyl chloride

For CCC compounds Initial Calibration Criteria - RSD less than or equal to 30%  
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Surrogate Recoveries Meet Criteria \_\_\_\_\_

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.



GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria NA        NO        YES   /  

If not met, list those compounds and their recoveries which fall outside the acceptable range.

9. Internal Standard Area/Retention Time Shift Meet Criteria NA        NO        YES   /  

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Analysis Holding Time Met NA        NO        YES   /  

If not met, list number of days exceeded for each sample:  
\_\_\_\_\_  
\_\_\_\_\_

ADDITIONAL COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

          *Shehal*            
Analyst

          *Carole Collins*            
QA REVIEW

          08.21.02            
Date

          8/27/02            
Date

GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARYCHEMTECH PROJECT NUMBER: P3702MATRIX: SoilMETHOD: 8270

	<u>NA</u>	<u>NO</u>	<u>YES</u>
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)	_____	_____	<u>✓</u>
2. GC/MS Tuning Specifications. DFTPP Meet Criteria Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)	_____	_____	<u>✓</u>
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series	_____	_____	<u>✓</u>
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	_____	_____	<u>✓</u>
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds for 8270 and CLP	_____	_____	<u>✓</u>
b. System Performance Check Compounds for 8270 and CLP	_____	_____	<u>✓</u>

8270 CALIBRATION CRITERIASPCC CompoundsMINRFCCC CompoundsBase/Neutral FractionAcid Fraction

N-nitroso-di-n-propylamine 0.050  
 Hexachlorocyclopentadiene 0.050  
 2,4-Dinitrophenol 0.050  
 4-Nitrophenol 0.050

Acenaphthene  
 1,4-Dichlorobenzene  
 Hexachlorobutadiene  
 Diphenylamine  
 Di-n-octyl phthalate  
 Fluoranthene  
 Benzo(a)pyrene

4-Chloro-3-methylphenol  
 2,4-Dichlorophenol  
 2-Nitrophenol  
 Phenol  
 Pentachlorophenol  
 2,4,6-Trichlorophenol

For CCC compounds Initial Calibration Criteria - RSD less than or equal to 30%

For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank: \_\_\_\_\_ ✓

a. B/N Fraction

[Bis(2-ethylhexyl)phthalate Present at 2.87 ng/ul]

b. Acid Fraction

[Concentration on BD001872.D.]

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

## 7. Surrogate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

a. B/N Fraction

See Summary form # 2

b. Acid Fraction

## 8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable range.

a. B/N Fraction

See Summary form # 3

b. Acid Fraction

## 9. Internal Standard Area/Retention Time Shift Meet Criteria

Comments:

See Summary form # 8Re-run a dilution reported

## 10. Extraction Holding Time Met

If not met, list number of days exceeded for each sample:

## 11. Analysis Holding Time Met

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Analyst

Nike

Date

08/23/02Carole Collins

QA REVIEW

Date

8/27/02

## CHEMTECH

SOP ID: CKLST-SEMI-VOA-REV

DOC. CONTROL #: CKLST-SEMI-VOA-REV -1.0

REVISION # 1.0

Page 1 of 2

Date: 04/28/00

## PEER REVIEW CHECKLIST FOR GCMS SEMI-VOA DATA

Fraction: 8volProject #: 03702Sample Numbers: 1-10

## QA DATA:

## ITEM

## Completed

Check instrument log for samples in batch. Highlights.

Make sure correct lab numbers are listed on all data.

Check Chain of Custody and Login Sheet for project specific information.

Check that all manual integrations are initialed and dated.

## TUNES:

Check that the proper tune is included and that the appropriate lab #s are listed on the tune.

Check that the tune meets the correct criteria.

Check that all samples were run within 12 hours for 8270 and CLP, 24 hours for 625.

## BLANKS:

Check quant report for compounds called and quantitation.

Check if any compounds need to be flagged with a J.

Check that blank meets contamination criteria.

Check blank nontargeted results for proper CAS #, retention time, compound name, mw, concentration against spectra.

Check blank chromatograms to ensure that all peaks are accounted for.

Check that all compounds not called are crossed off, initialed and dated on quantitation reports and tics.

Check that spectra are included for all compounds called.

## CALIBRATION:

Check that the proper initial and continuing calibration forms are included.

Compare initial curves to continuing curve to make sure correct curves are included.

Verify dates on curves.

Verify that extra compound initial and continuing curves are included.

Check that SPCCS and CCCS meet criteria on the initial and continuing calibrations.

## SURROGATES:

Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).

Check that surrogate recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-extracted and re-analyzed to prove matrix interference).

Verify surrogates reported to the quantitation reports.

## SPIKES:

Verify that the correct spike sample is being reported for that batch.

Check that the spike recoveries are reported in the appropriate form (i.e. water, soil).

Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.

Verify spike recoveries to quantitation reports.

If any values outside of QC limits exist on MS/MSD, was Blank Spike used.

Non-conformances / Comments:

## CHEMTECH

SOP ID: CKLST-SEMI-VOA-REV

DOC. CONTROL #: CKLST-SEMI-VOA-REV -1.0

REVISION # 1.0

Page 2 of 2

Date: 04/28/00

## SAMPLES:

## ITEM

Completed

Check that all manual integrations are initialed and dated.

Check quant report for targeted compounds called and randomly verify quantitation (be sure to take moisture and dilutions into account).

Verify that the appropriate number and largest non-target peaks are called.

Check to ensure that compounds which exceed the linear range have been diluted, re-analyzed, and quanted from the dilution.

Check that reporting limits are typical and if not (reason is not apparent) are footnoted.

Verify reporting limits for extra compounds.

Check nontargeted results for proper concentration, CAS #, retention time; compounds need to be flagged with B or J.

Check that spectra are included for all compounds called.

Check chromatograms to ensure that all peaks are accounted for.

Check if any of the data requires a footnote.

Check that the samples were run / extracted within their holding time.

Non - Conformance / Comments:

Peer Review Signature:

Kupa

Date:

8/26/02

TECHNICAL SUPERVISOR REVIEW:

## ITEM

Completed

Check for compliance with the Method and project specific requirements.

Check the report for completeness.

Check the information in the case narrative.

Check the results for reasonableness.

Technical Supervisor Review Signature:

Carole Collins

Date:

8/27/02

chk1st-semi-voa-rev1.doc

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARYCHEMTECH PROJECT LAB NUMBER: P3707 MATRIX: SOLID METHOD: 8081

- |  | YES       | NA        | NO        |
|--|-----------|-----------|-----------|
| 1. Chromatograms Labeled/Compounds Identified.   | <u>/</u>  | <u>  </u> | <u>  </u> |
| 2. Standards Summary Submitted   | <u>/</u>  | <u>  </u> | <u>  </u> |
| 3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD | <u>/</u>  | <u>  </u> | <u>  </u> |
| 4. Blank Contamination - If yes, list compounds and concentrations in each blank:  | <u>  </u> | <u>  </u> | <u>/</u>  |
| <hr/>  |           |           |           |
| 5. Surrogate Recoveries Meet Criteria<br>If not met, list those compounds and their recoveries which fall outside the acceptable ranges.   | <u>/</u>  | <u>  </u> | <u>  </u> |
| <hr/>  |           |           |           |
| 6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria.<br>If not met, list those compounds and their recoveries which fall outside the acceptable range.                           | <u>  </u> | <u>  </u> | <u>/</u>  |
| <u>matrix interference</u>   |           |           |           |
| <hr/>  |           |           |           |
| 7. Retention Time Shift Meet Criteria (if applicable)  | <u>/</u>  | <u>  </u> | <u>  </u> |
| 8. Extraction Holding Time Met<br>If not met, list number of days exceeded for each sample.  | <u>/</u>  | <u>  </u> | <u>  </u> |
| <hr/>  |           |           |           |
| 9. Analysis Holding Time Met<br>If not met, list those compounds and their recoveries which fall outside the acceptable range.   | <u>/</u>  | <u>  </u> | <u>  </u> |

Additional Comments:   

Analyst

[Signature]

Date

Aug 20, 2002Carole Collins

QA REVIEW

Date

8/27/02

Document Control # A3040027

Page 1 of 1

PEER REVIEW CHECKLIST FOR GC DATA

Fraction: Best

Project #: Q3702

Sample Numbers: Q3702 17010

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	<input checked="" type="checkbox"/>
Make sure correct lab numbers are listed on all data.	<input checked="" type="checkbox"/>
Check Chain Custody and Login Sheet for project specific information.	<input checked="" type="checkbox"/>
Check that all manual integrations are initialed and dated.	<input checked="" type="checkbox"/>
Verify that the retention time of every peak of interest meet the criteria for window (RT $\pm$ 3 times the standard deviation of the mean absolute value or default to 0.03 minutes.)	<input checked="" type="checkbox"/>
BLANKS:	
Check quant report for compounds called and quantitation.	<input checked="" type="checkbox"/>
Check if any compounds need to be flagged with a J.	<input checked="" type="checkbox"/>
Check that blank meets contamination criteria.	<input checked="" type="checkbox"/>
Check blank chromatograms to ensure that all peaks are accounted for.	<input checked="" type="checkbox"/>
Check that all compounds not called are crossed off, initialed and dated on quantitation reports.	<input checked="" type="checkbox"/>
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	<input checked="" type="checkbox"/>
Compare initial curves to continuing curve to make sure correct curves are included.	<input checked="" type="checkbox"/>
Verify dates on curves.	<input checked="" type="checkbox"/>
Verify that extra compound initial calibration and continuing are included.	<input checked="" type="checkbox"/>
Verify that a continuous calibration check is run every 12 hrs for 8000 series and CLP and every 24hrs for 600 series	<input checked="" type="checkbox"/>
Check that the criteria is met on the initial and continuing calibrations.	
20% RSD for initial calibration and 15% for continuing calibration for 8000 series,	<input checked="" type="checkbox"/>
25% for CLP and 10% RSD and Table on SOP for continuing for 600 series	<input checked="" type="checkbox"/>
Verify a closing check is analyzed for each analytical sequence	<input checked="" type="checkbox"/>
Verify that the concentration of the CCC is varied	<input checked="" type="checkbox"/>
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	<input checked="" type="checkbox"/>
Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.	<input checked="" type="checkbox"/>
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).	<input checked="" type="checkbox"/>
Verify surrogates reported to the quantitation reports.	<input checked="" type="checkbox"/>
SPIKES:	
Check that appropriate sample is on the spike recovery form.	<input checked="" type="checkbox"/>
Verify that the correct spike sample is being reported for that batch.	<input checked="" type="checkbox"/>
Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).	<input checked="" type="checkbox"/>
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	<input checked="" type="checkbox"/>
Verify spike recoveries to quantitation reports.	<input checked="" type="checkbox"/>
Verify that a blank spike was analyzed for each batch of 20 samples.	<input checked="" type="checkbox"/>
Verify that the blank spike meets QC requirements (70-130%).	<input checked="" type="checkbox"/>
If any values outside of QC limits exist on MS/MSD, was Blank Spike used?	<input checked="" type="checkbox"/>

Non-conformances / Comments: \_\_\_\_\_

SAMPLES:  
ITEM

Completed

Check that all manual integrations are initialed, dated and justified.	<u>          /          </u>
Check that the correct sample matrix and units are on the result form.	<u>          /          </u>
Check quant report for targeted compounds called and verify quantitation (be sure to take moisture and dilutions into account).	<u>          /          </u>
Check to ensure that compounds which exceeds the linear range have been, diluted, re-analyzed, and quanted from the dilution.	<u>          /          </u>
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.	<u>          /          </u>
Verify reporting limits for extra compounds.	<u>          /          </u>
Check chromatograms to ensure that all peaks are accounted for.	<u>          /          </u>
Check if any of the data requires a footnote.	<u>          /          </u>
Check that the samples were analyzed / extracted within their holding time.	<u>          /          </u>

Non - Conformance / Comments: \_\_\_\_\_

Peer Review Signature: \_\_\_\_\_

Date: 08/20/02  
Aug 20, 2002

TECHNICAL SUPERVISOR REVIEW:

ITEM

Completed

Check for compliance with the Method and project specific requirements.	<u>          /          </u>
Check the report for completeness.	<u>          /          </u>
Check the information in the case narrative.	<u>          /          </u>
Check the results for reasonableness.	<u>          /          </u>

Technical Supervisor Review Signature: Cande Collins

Date: 8/27/02



SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-03

Client ID: TP-34

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001859.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.3

Extract Vol: 1000

Injection Vol: 2

% Moisture: 15

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
Nitrosodimethylamine	< 38	U	380	38	ug/Kg
1-enol	< 38	U	380	38	ug/Kg
bis(2-Chloroethyl)ether	< 46	U	380	46	ug/Kg
2-Chlorophenol	< 42	U	380	42	ug/Kg
1,1-Dichlorobenzene	< 38	U	380	38	ug/Kg
1,3-Dichlorobenzene	< 46	U	380	46	ug/Kg
1,4-Dichlorobenzene	< 38	U	380	38	ug/Kg
Benzyl Alcohol	< 38	U	380	38	ug/Kg
2-Methylphenol	< 38	U	380	38	ug/Kg
2,2'-oxybis(1-chloropropane)	< 38	U	380	38	ug/Kg
3,4-Methylphenols	< 69	U	380	69	ug/Kg
N-Nitroso-di-n-propylamine	< 38	U	380	38	ug/Kg
Hexachloroethane	< 42	U	380	42	ug/Kg
Nitrobenzene	< 38	U	380	38	ug/Kg
Phosphorone	< 38	U	380	38	ug/Kg
Nitrophenol	< 42	U	380	42	ug/Kg
2,4-Dimethylphenol	< 88	U	380	88	ug/Kg
(2-Chloroethoxy)methane	< 38	U	380	38	ug/Kg
2,4-Dichlorophenol	< 50	U	380	50	ug/Kg
1,2,4-Trichlorobenzene	< 46	U	380	46	ug/Kg
Phthalene	< 46	U	380	46	ug/Kg
Chloroaniline	< 46	U	380	46	ug/Kg
Hexachlorobutadiene	< 58	U	380	58	ug/Kg
2-Chloro-3-methylphenol	< 42	U	380	42	ug/Kg
Hexachlorocyclopentadiene	< 150	U	380	150	ug/Kg
2,4,6-Trichlorophenol	< 38	U	380	38	ug/Kg
2,3,5-Trichlorophenol	< 38	U	970	38	ug/Kg
1-Chloronaphthalene	< 46	U	380	46	ug/Kg
Dimethylphthalate	< 38	U	380	38	ug/Kg
1-Naphthylene	< 46	U	380	46	ug/Kg
2,6-Dinitrotoluene	< 38	U	380	38	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-03

Client ID: TP-34

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001859.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.3

Extract Vol: 1000

Injection Vol: 2

% Moisture: 15

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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### TARGETS

Acenaphthene	< 46	U	380	46	ug/Kg
2,4-Dinitrophenol	< 77	U	970	77	ug/Kg
4-Nitrophenol	< 42	U	970	42	ug/Kg
2,4-Dinitrotoluene	< 42	U	380	42	ug/Kg
1-methylphthalate	< 38	U	380	38	ug/Kg
4-Chlorophenyl-phenylether	< 46	U	380	46	ug/Kg
1-m-xylene	< 42	U	380	42	ug/Kg
2,4-Dinitro-2-methylphenol	< 46	U	970	46	ug/Kg
N-Nitrosodiphenylamine	< 77	U	380	77	ug/Kg
1-m-toluenes	< 42	U	380	42	ug/Kg
4-Bromophenyl-phenylether	< 50	U	380	50	ug/Kg
Hexachlorobenzene	< 42	U	380	42	ug/Kg
2-methyl-4-chlorophenol	< 73	U	970	73	ug/Kg
Phenanthrene	48	J	380	38	ug/Kg
Anthracene	< 50	U	380	50	ug/Kg
1-m-n-butylphthalate	< 46	U	380	46	ug/Kg
Fluoranthene	110	J	380	38	ug/Kg
1-m-azidine	< 42	U	380	42	ug/Kg
1-m-xylene	140	J	380	38	ug/Kg
Butylbenzylphthalate	< 38	U	380	38	ug/Kg
1-m-Dichlorobenzidine	< 38	U	380	38	ug/Kg
1-m-iso(a)anthracene	69	J	380	38	ug/Kg
Chrysene	71	J	380	62	ug/Kg
1-m-(2-Ethylhexyl)phthalate	190	JB	380	38	ug/Kg
1-m-n-octyl phthalate	< 58	U	380	58	ug/Kg
benzo(b)fluoranthene	61	J	380	38	ug/Kg
benzo(k)fluoranthene	100	J	380	100	ug/Kg
benzo(a)pyrene	75	J	380	58	ug/Kg
benzo(1,2,3-cd)pyrene	< 62	U	380	62	ug/Kg
benzo(a,h)anthracene	< 58	U	380	58	ug/Kg
benzo(g,h,i)perylene	50	U	380	50	ug/Kg

**SVOC-PP BNA**

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-03

Client ID: TP-34

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001859.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.3

Extract Vol: 1000

Injection Vol: 2

% Moisture: 15

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
<b>SURROGATES</b>					
2-Fluorophenol	256.17	85 %	25 - 121		SPK: 300
1-nol-d5	228.78	76 %	24 - 113		SPK: 300
Nitrobenzene-d5	151.77	76 %	23 - 120		SPK: 200
2-Fluorobiphenyl	161.38	81 %	30 - 115		SPK: 200
2,6-Tribromophenol	285.01	95 %	19 - 122		SPK: 300
Terphenyl-d14	283.69	142 %	18 - 137		SPK: 200

**INTERNAL STANDARDS**

1,4-Dichlorobenzene-d4	41121	5.58
1-phthalene-d8	121947	8.02
1-naphthene-d10	88252	11.72
Phenanthrene-d10	131028	14.90
1-rysene-d12	78939	20.69
1-ylene-d12	63402	23.63

**IDENTIFIED COMPOUNDS**

1-P	7400	A	3.35	ug/Kg
Hexadecanoic acid	370	JB	16.40	ug/Kg
1-phthalene, 1,2,3,5,6,7,8,8a-octah	780	J	25.49	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-04

Client ID: TP-6D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001861.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.2

Extract Vol: 1000

Injection Vol: 2

% Moisture: 26

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## TARGETS

Nitrosodimethylamine	< 44	U	440	44	ug/Kg
enol	< 44	U	440	44	ug/Kg
bis(2-Chloroethyl)ether	< 53	U	440	53	ug/Kg
Chlorophenol	< 49	U	440	49	ug/Kg
,1-Dichlorobenzene	< 44	U	440	44	ug/Kg
1,3-Dichlorobenzene	< 53	U	440	53	ug/Kg
,4-Dichlorobenzene	< 44	U	440	44	ug/Kg
Benzyl Alcohol	< 44	U	440	44	ug/Kg
2-Methylphenol	< 44	U	440	44	ug/Kg
1-oxybis(1-chloropropane)	< 44	U	440	44	ug/Kg
3+4-Methylphenols	< 80	U	440	80	ug/Kg
N-Nitroso-di-n-propylamine	< 44	U	440	44	ug/Kg
hexachloroethane	< 49	U	440	49	ug/Kg
Nitrobenzene	< 44	U	440	44	ug/Kg
phorone	< 44	U	440	44	ug/Kg
Nitrophenol	< 49	U	440	49	ug/Kg
2,4-Dimethylphenol	< 100	U	440	100	ug/Kg
(2-Chloroethoxy)methane	< 44	U	440	44	ug/Kg
,4-Dichlorophenol	< 58	U	440	58	ug/Kg
,2,4-Trichlorobenzene	< 53	U	440	53	ug/Kg
phthalene	< 53	U	440	53	ug/Kg
Chloroaniline	< 53	U	440	53	ug/Kg
hexachlorobutadiene	< 66	U	440	66	ug/Kg
Chloro-3-methylphenol	< 49	U	440	49	ug/Kg
hexachlorocyclopentadiene	< 170	U	440	170	ug/Kg
4,6-Trichlorophenol	< 44	U	440	44	ug/Kg
,5-Trichlorophenol	< 44	U	1100	44	ug/Kg
-Chloronaphthalene	< 53	U	440	53	ug/Kg
-methylphthalate	< 44	U	440	44	ug/Kg
naphthylene	< 53	U	440	53	ug/Kg
,6-Dinitrotoluene	< 44	U	440	44	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-04

Client ID: TP-6D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001861.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.2

Extract Vol: 1000

Injection Vol: 2

% Moisture: 26

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
Acenaphthene	< 53	U	440	53	ug/Kg
4-Dinitrophenol	< 89	U	1100	89	ug/Kg
4-Nitrophenol	< 49	U	1100	49	ug/Kg
4-Dinitrotoluene	< 49	U	440	49	ug/Kg
Diethylphthalate	< 44	U	440	44	ug/Kg
4-Chlorophenyl-phenylether	< 53	U	440	53	ug/Kg
Fluorene	< 49	U	440	49	ug/Kg
2,5-Dinitro-2-methylphenol	< 53	U	1100	53	ug/Kg
N-Nitrosodiphenylamine	< 89	U	440	89	ug/Kg
Toluene	< 48	U	440	48	ug/Kg
4-Bromophenyl-phenylether	< 58	U	440	58	ug/Kg
Hexachlorobenzene	< 49	U	440	49	ug/Kg
2,4-Dichlorophenol	< 84	U	1100	84	ug/Kg
Phenanthrene	150	J	440	44	ug/Kg
Anthracene	< 58	U	440	58	ug/Kg
Di-n-butylphthalate	< 53	U	440	53	ug/Kg
Fluoranthene	290	J	440	44	ug/Kg
Benzenzidine	< 48	U	440	48	ug/Kg
Fluorene	350	J	440	44	ug/Kg
Butylbenzylphthalate	< 44	U	440	44	ug/Kg
3,3'-Dichlorobenzidine	< 44	U	440	44	ug/Kg
Benzo(a)anthracene	140	J	440	44	ug/Kg
Chrysene	190	J	440	71	ug/Kg
Di(2-Ethylhexyl)phthalate	82	JB	440	44	ug/Kg
Di-n-octyl phthalate	< 66	U	440	66	ug/Kg
Benzo(b)fluoranthene	140	J	440	44	ug/Kg
Benzo(k)fluoranthene	140	J	440	120	ug/Kg
Benzo(a)pyrene	210	J	440	66	ug/Kg
Indeno(1,2,3-cd)pyrene	< 71	U	440	71	ug/Kg
Benzo(a,h)anthracene	< 66	U	440	66	ug/Kg
Benzo(g,h,i)perylene	98	J	440	58	ug/Kg

**SVOC-PP BNA**

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-04

Client ID: TP-6D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001861.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Vol: 30.2

Extract Vol: 1000

Injection Vol: 2

% Moisture: 26

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
<b>SURROGATES</b>					
Fluorophenol	296.06	99 %	25 - 121		SPK: 300
Enol-d5	240.88	80 %	24 - 113		SPK: 300
Nitrobenzene-d5	158.91	79 %	23 - 120		SPK: 200
Fluorobiphenyl	179.09	90 %	30 - 115		SPK: 200
1,6-Tribromophenol	287.47	96 %	19 - 122		SPK: 300
Terphenyl-d14	290.26	145 %	18 - 137		SPK: 200

<b>INTERNAL STANDARDS</b>		
1,4-Dichlorobenzene-d4	41415	5.57
Phthalene-d8	121437	8.02
Benaphthene-d10	86303	11.71
Phenanthrene-d10	132300	14.89
Pyrene-d12	79449	20.69
Pyrene-d12	53219	23.63

<b>POTENTIAL IDENTIFIED COMPOUNDS</b>				
PEP	8600	A	3.35	ug/Kg
Hexadecanoic acid	450	JB	16.40	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-05

Client ID: TP-6

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001862.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.1

Extract Vol: 1000

Injection Vol: 2

% Moisture: 18

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## SURROGATES

2-Fluorophenol	293.22	98 %	25 - 121		SPK: 300
1-Enol-d5	257.44	86 %	24 - 113		SPK: 300
Nitrobenzene-d5	178.64	89 %	23 - 120		SPK: 200
2-Fluorobiphenyl	184.61	92 %	30 - 115		SPK: 200
2,6-Tribromophenol	308.26	103 %	19 - 122		SPK: 300
Terphenyl-d14	290.64	145 %	18 - 137		SPK: 200

## INTERNAL STANDARDS

1,4-Dichlorobenzene-d4	42489	5.57			
1-phthalene-d8	121018	8.02			
1-enaphthene-d10	89430	11.71			
Phenanthrene-d10	136518	14.89			
Pyrene-d12	77021	20.68			
1-ylene-d12	37648	23.65			

## IDENTIFIED COMPOUNDS

OP	7800	A	3.35		ug/Kg
Hexadecanoic acid	420	JB	16.40		ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06

Client ID: TP-4

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001863.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 24

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## TARGETS

Nitrosodimethylamine	< 43	U	430	43	ug/Kg
enol	< 43	U	430	43	ug/Kg
bis(2-Chloroethyl)ether	< 52	U	430	52	ug/Kg
Chlorophenol	< 48	U	430	48	ug/Kg
1,2-Dichlorobenzene	< 43	U	430	43	ug/Kg
1,3-Dichlorobenzene	< 52	U	430	52	ug/Kg
1-Dichlorobenzene	< 43	U	430	43	ug/Kg
benzyl Alcohol	< 43	U	430	43	ug/Kg
2-Methylphenol	< 43	U	430	43	ug/Kg
1-oxybis(1-chloropropane)	< 43	U	430	43	ug/Kg
3+4-Methylphenols	< 78	U	430	78	ug/Kg
Nitroso-di-n-propylamine	< 43	U	430	43	ug/Kg
hexachloroethane	< 48	U	430	48	ug/Kg
Nitrobenzene	< 43	U	430	43	ug/Kg
phorone	< 43	U	430	43	ug/Kg
Nitrophenol	< 48	U	430	48	ug/Kg
2,4-Dimethylphenol	< 100	U	430	100	ug/Kg
(2-Chloroethoxy)methane	< 43	U	430	43	ug/Kg
1-Dichlorophenol	< 56	U	430	56	ug/Kg
1,2,4-Trichlorobenzene	< 52	U	430	52	ug/Kg
phthalene	< 52	U	430	52	ug/Kg
2-Chloroaniline	< 52	U	430	52	ug/Kg
hexachlorobutadiene	< 65	U	430	65	ug/Kg
1-chloro-3-methylphenol	< 48	U	430	48	ug/Kg
hexachlorocyclopentadiene	< 160	U	430	160	ug/Kg
1,4,6-Trichlorophenol	< 43	U	430	43	ug/Kg
1,5-Trichlorophenol	< 43	U	1100	43	ug/Kg
1-Chloronaphthalene	< 52	U	430	52	ug/Kg
1-methylphthalate	< 43	U	430	43	ug/Kg
1-naphthylene	120	J	430	52	ug/Kg
1,6-Dinitrotoluene	< 43	U	430	43	ug/Kg



## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06

Client ID: TP-4

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001863.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 24

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## TARGETS

Benaphthene	< 52	U	430	52	ug/Kg
2,4-Dinitrophenol	< 87	U	1100	87	ug/Kg
4-Nitrophenol	< 48	U	1100	48	ug/Kg
2,4-Dinitrotoluene	< 48	U	430	48	ug/Kg
Diethylphthalate	< 43	U	430	43	ug/Kg
4-Chlorophenyl-phenylether	< 52	U	430	52	ug/Kg
Styrene	< 48	U	430	48	ug/Kg
2,6-Dinitro-2-methylphenol	< 52	U	1100	52	ug/Kg
N-Nitrosodiphenylamine	< 87	U	430	87	ug/Kg
Toluene	< 47	U	430	47	ug/Kg
1-Bromophenyl-phenylether	< 56	U	430	56	ug/Kg
Hexachlorobenzene	< 48	U	430	48	ug/Kg
2,4,6-Trichlorophenol	< 82	U	1100	82	ug/Kg
Phenanthrene	360	J	430	43	ug/Kg
Fluoranthene	130	J	430	56	ug/Kg
n-Butylphthalate	140	J	430	52	ug/Kg
Fluoranthene	970		430	43	ug/Kg
Acridine	< 47	U	430	47	ug/Kg
Styrene	1200		430	43	ug/Kg
Butylbenzylphthalate	900		430	43	ug/Kg
1,2-Dichlorobenzidine	< 43	U	430	43	ug/Kg
Benzo(a)anthracene	440		430	43	ug/Kg
Chrysene	700		430	69	ug/Kg
2-Ethylhexylphthalate	5200	EB	430	43	ug/Kg
n-n-octyl phthalate	< 65	U	430	65	ug/Kg
Benzo(b)fluoranthene	580		430	43	ug/Kg
Benzo(k)fluoranthene	900		430	110	ug/Kg
Benzo(a)pyrene	700		430	65	ug/Kg
Benzo(1,2,3-cd)pyrene	120	J	430	69	ug/Kg
Benzo(a,h)anthracene	< 65	U	430	65	ug/Kg
Benzo(g,h,i)perylene	240	J	430	56	ug/Kg

**SVOC-PP BNA**

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06

Client ID: TP-4

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001863.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 24

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
<b>SURROGATES</b>					
Fluorophenol	292.61	98 %	25 - 121		SPK: 300
Phenol-d5	239.13	80 %	24 - 113		SPK: 300
Nitrobenzene-d5	168.9	84 %	23 - 120		SPK: 200
Fluorobiphenyl	173.98	87 %	30 - 115		SPK: 200
4,6-Tribromophenol	308.79	103 %	19 - 122		SPK: 300
Terphenyl-d14	269.09	135 %	18 - 137		SPK: 200

**INTERNAL STANDARDS**

Naphthalene-d8	128896	8.01			
Benaphthene-d10	97255	11.71			
Benanthrene-d10	149576	14.89			
Chrysene-d12	86524	20.71			
Benzylene-d12	33690	23.69			

**TENTATIVE IDENTIFIED COMPOUNDS**

CP	3900	A	3.34		ug/Kg
lflur, mol. (S8)	600	J	17.30		ug/Kg
Anthracene, 9-dodecyltetradecahyd	880	J	24.39		ug/Kg
s-20-en-16-ol, (16.beta.,18.alpha	840	J	24.89		ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06DL

Client ID: TP-4DL

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/22/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001896.D

Dilution: 5

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 24

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## TARGETS

Nitrosodimethylamine	< 220	U	2200	220	ug/Kg
1,2-Ethanol	< 220	U	2200	220	ug/Kg
Bis(2-Chloroethyl)ether	< 260	U	2200	260	ug/Kg
2-Chlorophenol	< 240	U	2200	240	ug/Kg
1,2-Dichlorobenzene	< 220	U	2200	220	ug/Kg
1,3-Dichlorobenzene	< 260	U	2200	260	ug/Kg
1,4-Dichlorobenzene	< 220	U	2200	220	ug/Kg
Benzyl Alcohol	< 220	U	2200	220	ug/Kg
2-Methylphenol	< 220	U	2200	220	ug/Kg
1,1'-oxybis(1-chloropropane)	< 220	U	2200	220	ug/Kg
2,4,6-Trichlorophenols	< 390	U	2200	390	ug/Kg
Nitroso-di-n-propylamine	< 220	U	2200	220	ug/Kg
1,2-Dichloroethane	< 240	U	2200	240	ug/Kg
Nitrobenzene	< 220	U	2200	220	ug/Kg
2,4-Dichlorophenone	< 220	U	2200	220	ug/Kg
2-Nitrophenol	< 240	U	2200	240	ug/Kg
2,4-Dimethylphenol	< 500	U	2200	500	ug/Kg
1,1-(2-Chloroethoxy)methane	< 220	U	2200	220	ug/Kg
2,4-Dichlorophenol	< 280	U	2200	280	ug/Kg
1,2,4-Trichlorobenzene	< 260	U	2200	260	ug/Kg
1,2,3-Trichlorobenzene	< 260	U	2200	260	ug/Kg
2-Chloroaniline	< 260	U	2200	260	ug/Kg
1,2,3-Trichlorobutadiene	< 330	U	2200	330	ug/Kg
2-Chloro-3-methylphenol	< 240	U	2200	240	ug/Kg
1,2,3-Trichlorocyclopentadiene	< 820	U	2200	820	ug/Kg
2,4,6-Trichlorophenol	< 220	U	2200	220	ug/Kg
2,4,5-Trichlorophenol	< 220	U	5500	220	ug/Kg
1-Chloronaphthalene	< 260	U	2200	260	ug/Kg
1,2-Dimethylphthalate	< 220	U	2200	220	ug/Kg
1-Naphthylene	< 260	U	2200	260	ug/Kg
2,6-Dinitrotoluene	< 220	U	2200	220	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06DL

Client ID: TP-4DL

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/22/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001896.D

Dilution: 5

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Vol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 24

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
<b>SURROGATES</b>					
2-Fluorophenol	25.15	42 %	25 - 121		SPK: 300
2-Fluorophenol-d5	34.39	57 %	24 - 113		SPK: 300
Nitrobenzene-d5	25.83	65 %	23 - 120		SPK: 200
2-Fluorobiphenyl	23.83	60 %	30 - 115		SPK: 200
1,4,6-Tribromophenol	38.89	65 %	19 - 122		SPK: 300
Terphenyl-d14	57.21	143 %	18 - 137		SPK: 200

**INTERNAL STANDARDS**

1,4-Dichlorobenzene-d4	42373	5.54
1-Naphthalene-d8	130181	7.97
1-Naphthalene-d10	89954	11.68
Phenanthrene-d10	120971	14.83
1-Pyrene-d12	36376	20.64
1-Pyrene-d12	10965	23.61

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-07

Client ID: TP-4D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001857.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.6

Extract Vol: 1000

Injection Vol: 2

% Moisture: 20

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## TARGETS

Nitrosodimethylamine	< 40	U	400	40	ug/Kg
enol	< 40	U	400	40	ug/Kg
bis(2=Chloroethyl)ether	< 49	U	400	49	ug/Kg
Chlorophenol	< 44	U	400	44	ug/Kg
1,2-Dichlorobenzene	< 40	U	400	40	ug/Kg
1,3-Dichlorobenzene	< 49	U	400	49	ug/Kg
1,4-Dichlorobenzene	< 40	U	400	40	ug/Kg
Benzyl Alcohol	< 40	U	400	40	ug/Kg
2-Methylphenol	< 40	U	400	40	ug/Kg
1,2-oxybis(1-chloropropane)	< 40	U	400	40	ug/Kg
3+4-Methylphenols	< 73	U	400	73	ug/Kg
N-Nitroso-di-n-propylamine	< 40	U	400	40	ug/Kg
1,2-dichloroethane	< 44	U	400	44	ug/Kg
Nitrobenzene	< 40	U	400	40	ug/Kg
Phorone	< 40	U	400	40	ug/Kg
Nitrophenol	< 44	U	400	44	ug/Kg
2,4-Dimethylphenol	< 93	U	400	93	ug/Kg
(2-Chloroethoxy)methane	< 40	U	400	40	ug/Kg
2,4-Dichlorophenol	< 53	U	400	53	ug/Kg
1,2,4-Trichlorobenzene	< 49	U	400	49	ug/Kg
Phthalene	< 49	U	400	49	ug/Kg
2-Chloroaniline	< 49	U	400	49	ug/Kg
Hexachlorobutadiene	< 61	U	400	61	ug/Kg
2-Chloro-3-methylphenol	< 44	U	400	44	ug/Kg
Hexachlorocyclopentadiene	< 150	U	400	150	ug/Kg
1,4,6-Trichlorophenol	< 40	U	400	40	ug/Kg
1,5-Trichlorophenol	< 40	U	1000	40	ug/Kg
1-Chloronaphthalene	< 49	U	400	49	ug/Kg
1-Methylphthalate	< 40	U	400	40	ug/Kg
1-Naphthylene	< 49	U	400	49	ug/Kg
1,6-Dinitrotoluene	< 40	U	400	40	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-07

Client ID: TP-4D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001857.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.6

Extract Vol: 1000

Injection Vol: 2

% Moisture: 20

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## TARGETS

Acenaphthene	< 49	U	400	49	ug/Kg
2,4-Dinitrophenol	< 81	U	1000	81	ug/Kg
4-Nitrophenol	< 44	U	1000	44	ug/Kg
2,4-Dinitrotoluene	< 44	U	400	44	ug/Kg
Diethylphthalate	< 40	U	400	40	ug/Kg
4-Chlorophenyl-phenylether	< 49	U	400	49	ug/Kg
Toluene	< 44	U	400	44	ug/Kg
2,4-Dinitro-2-methylphenol	< 49	U	1000	49	ug/Kg
N-Nitrosodiphenylamine	< 81	U	400	81	ug/Kg
Toluene	< 44	U	400	44	ug/Kg
3-Bromophenyl-phenylether	< 53	U	400	53	ug/Kg
Hexachlorobenzene	< 44	U	400	44	ug/Kg
2,4-Dichlorophenol	< 77	U	1000	77	ug/Kg
Phenanthrene	< 40	U	400	40	ug/Kg
Anthracene	< 53	U	400	53	ug/Kg
n-butylphthalate	< 49	U	400	49	ug/Kg
Fluoranthene	< 40	U	400	40	ug/Kg
Benzidine	< 44	U	400	44	ug/Kg
Toluene	< 40	U	400	40	ug/Kg
Butylbenzylphthalate	< 40	U	400	40	ug/Kg
2,4-Dichlorobenzidine	< 40	U	400	40	ug/Kg
Benzo(a)anthracene	< 40	U	400	40	ug/Kg
Chrysene	< 65	U	400	65	ug/Kg
2-Ethylhexylphthalate	< 40	U	400	40	ug/Kg
n-octyl phthalate	< 61	U	400	61	ug/Kg
Benzo(b)fluoranthene	< 40	U	400	40	ug/Kg
Benzo(k)fluoranthene	< 110	U	400	110	ug/Kg
Benzo(a)pyrene	< 61	U	400	61	ug/Kg
Indeno(1,2,3-cd)pyrene	< 65	U	400	65	ug/Kg
Benzo(a,h)anthracene	< 61	U	400	61	ug/Kg
Benzo(g,h,i)perylene	< 53	U	400	53	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-07

Client ID: TP-4D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001857.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.6

Extract Vol: 1000

Injection Vol: 2

% Moisture: 20

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## SURROGATES

Fluorophenol	259.23	86 %	25 - 121		SPK: 300
Enol-d5	255.67	85 %	24 - 113		SPK: 300
Nitrobenzene-d5	178.15	89 %	23 - 120		SPK: 200
Fluorobiphenyl	188.75	94 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	339.97	113 %	19 - 122		SPK: 300
Terphenyl-d14	325.53	163 %	18 - 137		SPK: 200

## INTERNAL STANDARDS

1,4-Dichlorobenzene-d4	37527	5.58
Phthalene-d8	107455	8.03
Benaphthene-d10	79049	11.72
Phenanthrene-d10	117840	14.91
Pyrene-d12	72105	20.71
Perylene-d12	54753	23.65

## QUANTITATIVE IDENTIFIED COMPOUNDS

PP	8700	A	3.36	ug/Kg
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## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-08

Client ID: TP-13

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001864.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 4

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## TARGETS

Nitrosodimethylamine	< 34	U	340	34	ug/Kg
1-enol	< 34	U	340	34	ug/Kg
bis(2-Chloroethyl)ether	< 41	U	340	41	ug/Kg
1-Chlorophenol	< 38	U	340	38	ug/Kg
1,2-Dichlorobenzene	< 34	U	340	34	ug/Kg
1,3-Dichlorobenzene	< 41	U	340	41	ug/Kg
1,4-Dichlorobenzene	< 34	U	340	34	ug/Kg
Benzyl Alcohol	< 34	U	340	34	ug/Kg
2-Methylphenol	< 34	U	340	34	ug/Kg
1,2-bis(2-chloropropyl)ethane	< 34	U	340	34	ug/Kg
2,3,4-Methylphenols	< 62	U	340	62	ug/Kg
Nitroso-di-n-propylamine	< 34	U	340	34	ug/Kg
1,1,1-Trichloroethane	< 38	U	340	38	ug/Kg
Nitrobenzene	< 34	U	340	34	ug/Kg
1,2-Dichlorobenzene	< 34	U	340	34	ug/Kg
1,4-Dimethylphenol	< 79	U	340	79	ug/Kg
1,2-Dichloroethoxy)methane	< 34	U	340	34	ug/Kg
1,2,4-Trichlorophenol	< 45	U	340	45	ug/Kg
1,2,4-Trichlorobenzene	< 41	U	340	41	ug/Kg
1,2,3-Trichlorobenzene	< 41	U	340	41	ug/Kg
1-Chloroaniline	< 41	U	340	41	ug/Kg
1,2,3-Trichlorobutadiene	< 52	U	340	52	ug/Kg
1-Chloro-3-methylphenol	< 38	U	340	38	ug/Kg
1,2,3-Trichlorocyclopentadiene	< 130	U	340	130	ug/Kg
1,4,6-Trichlorophenol	< 34	U	340	34	ug/Kg
1,5-Trichlorophenol	< 34	U	860	34	ug/Kg
1-Chloronaphthalene	< 41	U	340	41	ug/Kg
1-Methylphthalate	< 34	U	340	34	ug/Kg
1-Naphthylene	< 41	U	340	41	ug/Kg
1,6-Dinitrotoluene	< 34	U	340	34	ug/Kg



**SVOC-PP BNA**

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-08

Client ID: TP-13

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001864.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 4

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
Benaphthene	< 41	U	340	41	ug/Kg
1-Dinitrophenol	< 69	U	860	69	ug/Kg
4-Nitrophenol	< 38	U	860	38	ug/Kg
1-Dinitrotoluene	< 38	U	340	38	ug/Kg
Diethylphthalate	< 34	U	340	34	ug/Kg
4-Chlorophenyl-phenylether	< 41	U	340	41	ug/Kg
Borene	< 38	U	340	38	ug/Kg
2,6-Dinitro-2-methylphenol	< 41	U	860	41	ug/Kg
N-Nitrosodiphenylamine	< 69	U	340	69	ug/Kg
Toluene	< 38	U	340	38	ug/Kg
4-Bromophenyl-phenylether	< 45	U	340	45	ug/Kg
Hexachlorobenzene	< 38	U	340	38	ug/Kg
1,2-Dichlorophenol	< 65	U	860	65	ug/Kg
Phenanthrene	< 34	U	340	34	ug/Kg
Anthracene	< 45	U	340	45	ug/Kg
n-Butylphthalate	< 41	U	340	41	ug/Kg
Fluoranthene	49	J	340	34	ug/Kg
Benzidine	< 38	U	340	38	ug/Kg
Benzene	80	J	340	34	ug/Kg
Butylbenzylphthalate	< 34	U	340	34	ug/Kg
1,2-Dichlorobenzidine	< 34	U	340	34	ug/Kg
Benzo(a)anthracene	< 34	U	340	34	ug/Kg
Chrysene	< 55	U	340	55	ug/Kg
(2-Ethylhexyl)phthalate	68	JB	340	34	ug/Kg
n-n-octyl phthalate	< 52	U	340	52	ug/Kg
benzo(b)fluoranthene	< 34	U	340	34	ug/Kg
benzo(k)fluoranthene	< 89	U	340	89	ug/Kg
benzo(a)pyrene	< 52	U	340	52	ug/Kg
benzo(1,2,3-cd)pyrene	< 55	U	340	55	ug/Kg
benz(a,h)anthracene	< 52	U	340	52	ug/Kg
benzo(g,h,i)perylene	< 45	U	340	45	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-08

Client ID: TP-13

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001864.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 4

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## SURROGATES

2-Fluorophenol	253.82	85 %	25 - 121		SPK: 300
1-Enol-d5	205.37	68 %	24 - 113		SPK: 300
Nitrobenzene-d5	128.26	64 %	23 - 120		SPK: 200
2-Fluorobiphenyl	151.46	76 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	259.18	86 %	19 - 122		SPK: 300
Terphenyl-d14	329.85	165 %	18 - 137		SPK: 200

## INTERNAL STANDARDS

1,4-Dichlorobenzene-d4	38353	5.57			
Phthalene-d8	113675	8.01			
Benaphthene-d10	81617	11.71			
Phenanthrene-d10	117282	14.88			
Pyrene-d12	54744	20.69			
Styrene-d12	21790	23.67			

## IDENTIFIED COMPOUNDS

PP	4900	A	3.33		ug/Kg
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## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09

Client ID: TP-10

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001865.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 24

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## TARGETS

Nitrosodimethylamine	< 43	U	430	43	ug/Kg
Enol	< 43	U	430	43	ug/Kg
bis(2-Chloroethyl)ether	< 52	U	430	52	ug/Kg
Chlorophenol	< 48	U	430	48	ug/Kg
1,2-Dichlorobenzene	< 43	U	430	43	ug/Kg
1,3-Dichlorobenzene	< 52	U	430	52	ug/Kg
1,4-Dichlorobenzene	< 43	U	430	43	ug/Kg
Benzyl Alcohol	< 43	U	430	43	ug/Kg
2-Methylphenol	< 43	U	430	43	ug/Kg
1,2-dioxybis(1-chloropropane)	< 43	U	430	43	ug/Kg
3+4-Methylphenols	< 78	U	430	78	ug/Kg
Nitroso-di-n-propylamine	< 43	U	430	43	ug/Kg
1,2-Dichloroethane	< 48	U	430	48	ug/Kg
Nitrobenzene	< 43	U	430	43	ug/Kg
Phorone	< 43	U	430	43	ug/Kg
Nitrophenol	< 48	U	430	48	ug/Kg
2,4-Dimethylphenol	< 100	U	430	100	ug/Kg
(2-Chloroethoxy)methane	< 43	U	430	43	ug/Kg
2,4-Dichlorophenol	< 56	U	430	56	ug/Kg
1,2,4-Trichlorobenzene	< 52	U	430	52	ug/Kg
Phthalene	67	J	430	52	ug/Kg
2-Chloroaniline	< 52	U	430	52	ug/Kg
1,2-Dichlorobutadiene	< 65	U	430	65	ug/Kg
2-Chloro-3-methylphenol	< 48	U	430	48	ug/Kg
1,2-Dichlorocyclopentadiene	< 160	U	430	160	ug/Kg
2,4,6-Trichlorophenol	< 43	U	430	43	ug/Kg
2,4,5-Trichlorophenol	< 43	U	1100	43	ug/Kg
1-Chloronaphthalene	< 52	U	430	52	ug/Kg
Dimethylphthalate	< 43	U	430	43	ug/Kg
Naphthylene	120	J	430	52	ug/Kg
2,6-Dinitrotoluene	< 43	U	430	43	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09

Client ID: TP-10

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001865.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 24

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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## TARGETS

Benaphthene	< 52	U	430	52	ug/Kg
2,4-Dinitrophenol	< 87	U	1100	87	ug/Kg
4-Nitrophenol	< 48	U	1100	48	ug/Kg
2,4-Dinitrotoluene	< 48	U	430	48	ug/Kg
Diethylphthalate	< 43	U	430	43	ug/Kg
4-Chlorophenyl-phenylether	< 52	U	430	52	ug/Kg
Toluene	< 48	U	430	48	ug/Kg
2,6-Dinitro-2-methylphenol	< 52	U	1100	52	ug/Kg
N-Nitrosodiphenylamine	< 87	U	430	87	ug/Kg
Toluene	< 47	U	430	47	ug/Kg
1-Bromophenyl-phenylether	< 56	U	430	56	ug/Kg
Hexachlorobenzene	< 48	U	430	48	ug/Kg
2,4-Dichlorophenol	< 82	U	1100	82	ug/Kg
Phenanthrene	340	J	430	43	ug/Kg
Thracene	76	J	430	56	ug/Kg
n-butylphthalate	< 52	U	430	52	ug/Kg
Fluoranthene	900		430	43	ug/Kg
Pyridine	< 47	U	430	47	ug/Kg
Toluene	1100		430	43	ug/Kg
Butylbenzylphthalate	< 43	U	430	43	ug/Kg
2,4-Dichlorobenzidine	< 43	U	430	43	ug/Kg
Benzo(a)anthracene	410	J	430	43	ug/Kg
Chrysene	580		430	69	ug/Kg
2-Ethylhexylphthalate	< 43	U	430	43	ug/Kg
n-n-octyl phthalate	< 65	U	430	65	ug/Kg
Benzo(b)fluoranthene	460		430	43	ug/Kg
Benzo(k)fluoranthene	660		430	110	ug/Kg
Benzo(a)pyrene	530		430	65	ug/Kg
Benzo(1,2,3-cd)pyrene	74	J	430	69	ug/Kg
Benzo(a,h)anthracene	< 65	U	430	65	ug/Kg
Benzo(g,h,i)perylene	150	J	430	56	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09

Client ID: TP-10

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/21/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001865.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Vol: 30.0

Extract Vol: 1000

Injection Vol: 2

% Moisture: 24

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
<b>SURROGATES</b>					
Fluorophenol	291.01	97 %	25 - 121		SPK: 300
enol-d5	238.56	80 %	24 - 113		SPK: 300
Nitrobenzene-d5	158.66	79 %	23 - 120		SPK: 200
Fluorobiphenyl	173.43	87 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	314.67	105 %	19 - 122		SPK: 300
Terphenyl-d14	321.46	161 %	18 - 137		SPK: 200

**INTERNAL STANDARDS**

1,4-Dichlorobenzene-d4	41486	5.56			
phthalene-d8	121921	8.01			
acenaphthene-d10	89418	11.71			
Phenanthrene-d10	129615	14.88			
rysene-d12	72086	20.70			
perylene-d12	28074	23.67			

**QUANTITATIVE IDENTIFIED COMPOUNDS**

PCP	8500	A	3.35		ug/Kg
Hexadecanoic acid	450	JB	16.42		ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-10

Client ID: TP-10D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001856.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.4

Extract Vol: 1000

Injection Vol: 2

% Moisture: 21

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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### TARGETS

Nitrosodimethylamine	< 41	U	410	41	ug/Kg
enol	< 41	U	410	41	ug/Kg
bis(2-Chloroethyl)ether	< 49	U	410	49	ug/Kg
Chlorophenol	< 45	U	410	45	ug/Kg
1,2-Dichlorobenzene	< 41	U	410	41	ug/Kg
1,3-Dichlorobenzene	< 49	U	410	49	ug/Kg
1,4-Dichlorobenzene	< 41	U	410	41	ug/Kg
Benzyl Alcohol	< 41	U	410	41	ug/Kg
2-Methylphenol	< 41	U	410	41	ug/Kg
1'-oxybis(1-chloropropane)	< 41	U	410	41	ug/Kg
3+4-Methylphenols	< 74	U	410	74	ug/Kg
Nitroso-di-n-propylamine	< 41	U	410	41	ug/Kg
Hexachloroethane	< 45	U	410	45	ug/Kg
Nitrobenzene	< 41	U	410	41	ug/Kg
Phosphorone	< 41	U	410	41	ug/Kg
Nitrophenol	< 45	U	410	45	ug/Kg
2,4-Dimethylphenol	< 95	U	410	95	ug/Kg
(2-Chloroethoxy)methane	< 41	U	410	41	ug/Kg
1,1-Dichlorophenol	< 54	U	410	54	ug/Kg
1,2,4-Trichlorobenzene	< 49	U	410	49	ug/Kg
Phthalene	< 49	U	410	49	ug/Kg
1-Chloroaniline	< 49	U	410	49	ug/Kg
Hexachlorobutadiene	< 62	U	410	62	ug/Kg
Chloro-3-methylphenol	< 45	U	410	45	ug/Kg
Hexachlorocyclopentadiene	< 160	U	410	160	ug/Kg
4,6-Trichlorophenol	< 41	U	410	41	ug/Kg
1,5-Trichlorophenol	< 41	U	1000	41	ug/Kg
1-Chloronaphthalene	< 49	U	410	49	ug/Kg
Dimethylphthalate	< 41	U	410	41	ug/Kg
Benaphthylene	< 49	U	410	49	ug/Kg
1,6-Dinitrotoluene	< 41	U	410	41	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-10

Client ID: TP-10D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001856.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Wol: 30.4

Extract Vol: 1000

Injection Vol: 2

% Moisture: 21

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
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### TARGETS

Acenaphthene	< 49	U	410	49	ug/Kg
1-Dinitrophenol	< 82	U	1000	82	ug/Kg
4-Nitrophenol	< 45	U	1000	45	ug/Kg
1-Dinitrotoluene	< 45	U	410	45	ug/Kg
Diethylphthalate	< 41	U	410	41	ug/Kg
4-Chlorophenyl-phenylether	< 49	U	410	49	ug/Kg
Borene	< 45	U	410	45	ug/Kg
2,3-Dinitro-2-methylphenol	< 49	U	1000	49	ug/Kg
N-Nitrosodiphenylamine	< 82	U	410	82	ug/Kg
Toluene	< 45	U	410	45	ug/Kg
4-Bromophenyl-phenylether	< 54	U	410	54	ug/Kg
Hexachlorobenzene	< 45	U	410	45	ug/Kg
2,4-Dichlorophenol	< 78	U	1000	78	ug/Kg
Phenanthrene	< 41	U	410	41	ug/Kg
Anthracene	< 54	U	410	54	ug/Kg
Di-n-butylphthalate	< 49	U	410	49	ug/Kg
Fluoranthene	< 41	U	410	41	ug/Kg
Benzidine	< 45	U	410	45	ug/Kg
Benzene	< 41	U	410	41	ug/Kg
Butylbenzylphthalate	< 41	U	410	41	ug/Kg
1,4-Dichlorobenzidine	< 41	U	410	41	ug/Kg
Benzo(a)anthracene	< 41	U	410	41	ug/Kg
Chrysene	< 66	U	410	66	ug/Kg
(2-Ethylhexyl)phthalate	88	JB	410	41	ug/Kg
Di-n-octyl phthalate	< 62	U	410	62	ug/Kg
Benzo(b)fluoranthene	< 41	U	410	41	ug/Kg
Benzo(k)fluoranthene	< 110	U	410	110	ug/Kg
Benzo(a)pyrene	< 62	U	410	62	ug/Kg
Indeno(1,2,3-cd)pyrene	< 66	U	410	66	ug/Kg
Benzo(a,h)anthracene	< 62	U	410	62	ug/Kg
Benzo(g,h,i)perylene	< 54	U	410	54	ug/Kg

## SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-10

Client ID: TP-10D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: BD001856.D

Dilution: 1

Instrument ID: 5971D

Analytical Method: 8270

Analytical Run ID: 1

Sample Wt/Vol: 30.4

Extract Vol: 1000

Injection Vol: 2

% Moisture: 21

Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
<b>SURROGATES</b>					
Fluorophenol	319.34	106 %	25 - 121		SPK: 300
enol-d5	258.63	86 %	24 - 113		SPK: 300
Nitrobenzene-d5	180.88	90 %	23 - 120		SPK: 200
Fluorobiphenyl	189.34	95 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	352.28	117 %	19 - 122		SPK: 300
Terphenyl-d14	324.3	162 %	18 - 137		SPK: 200
<b>INTERNAL STANDARDS</b>					
1,4-Dichlorobenzene-d4	34882	5.58			
phthalene-d8	99589	8.03			
acenaphthene-d10	73401	11.73			
Phenanthrene-d10	111098	14.91			
rysene-d12	72332	20.71			
acrylene-d12	58194	23.66			
<b>PRELIMINARY IDENTIFIED COMPOUNDS</b>					
PEP	10000	A	3.37		ug/Kg



# DRPSR SUMMARY DATA REVIEW CHECKLIST

Date QA Report Submitted 11-19-02

Case Name Veterans Mem

Document Reviewed SI

Case Number 01-08-07-1845-23

Non-aqueous analyses Pests, PCBs, PPM Metals

Lab Name Chemtech Consulting Group

Aqueous analyses -

Reviewer L. Bange

Date Reviewed 1-7-03

Samples Reviewed TP-31, TP 33, TP-34, TP-6, TP-6D, TP-4, TP 4D, TP-13, TP 10, TP-10D

Once the QA review is complete, attach the analytical results summary sheets, the signed Laboratory Deliverables Checklist and Non-Conformance Summary, and a list of the field and/or laboratory sample identification numbers to the DRPSR Data Review Checklist Supplement Form and include these items on the releasable side of the case file. The QA data may then be discarded.

Note: Please be advised that the full QA/QC package has not been retained in the file. For copies, please contact the laboratory or the owner or operator referenced in the file. NJ certified laboratories are required to retain lab deliverables for a minimum of five years.

List RP submitting QA/QC data \_\_\_\_\_

## I. SUMMARY DATA REVIEW REQUIREMENTS:

	Yes	No
1. Signed Laboratory Deliverables Checklist and Non-Conformance Summary submitted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Problems identified in the Laboratory Deliverables Checklist and Non-Conformance Summary?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. MDL's submitted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. MDL's less than current cleanup criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: \_\_\_\_\_



**SITE INVESTIGATION REPORT/ INTERIM REMEDIAL ACTION WORKPLAN  
VETERANS MEMORIAL PARK  
BLOCK 260, LOT 15.02  
SOUTH PLAINFIELD, NEW JERSEY  
PMK GROUP NO. 0502014**

**VOLUME IV**

**LABORATORY ANALYTICAL DATA PACKAGE**

**P3702**

**PREPARED BY:**

**THE PMK GROUP  
PO BOX 5000  
65 JACKSON DRIVE  
CRANFORD, NEW JERSEY 07016**

**PREPARED FOR:**

**BOROUGH OF SOUTH PLAINFIELD  
2480 PLAINFIELD AVENUE  
SOUTH PLAINFIELD, NEW JERSEY 07080**

**OCTOBER 18, 2002**

## Pesticide

SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-01

Client ID: TP-31

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8081

% Moisture: 12.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 3PS6995.D

Instrument ID: ECD3

Analytical Run ID: 3PS0816

Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
alpha-BHC	< 1.4	U	1.9	1.4	ug/Kg
beta-BHC	< 0.11	U	1.9	0.11	ug/Kg
delta-BHC	< 0.23	U	1.9	0.23	ug/Kg
gamma-BHC (Lindane)	< 0.11	U	1.9	0.11	ug/Kg
Heptachlor	< 1.1	U	1.9	1.1	ug/Kg
Aldrin	< 0.11	U	1.9	0.11	ug/Kg
Heptachlor epoxide	< 0.34	U	1.9	0.34	ug/Kg
Endosulfan I	< 0.56	U	1.9	0.56	ug/Kg
Dieldrin	< 0.11	U	1.9	0.11	ug/Kg
4,4'-DDE	< 0.23	U	1.9	0.23	ug/Kg
Endrin	< 0.90	U	1.9	0.90	ug/Kg
Endosulfan II	< 0.34	U	1.9	0.34	ug/Kg
4,4'-DDD	< 0.23	U	1.9	0.23	ug/Kg
Endosulfan sulfate	< 0.68	U	1.9	0.68	ug/Kg
4,4'-DDT	< 0.23	U	1.9	0.23	ug/Kg
Methoxychlor	< 0.11	U	1.9	0.11	ug/Kg
Endrin ketone	< 0.11	U	1.9	0.11	ug/Kg
Endrin aldehyde	< 0.90	U	1.9	0.90	ug/Kg
alpha-Chlordane	< 0.34	U	1.9	0.34	ug/Kg
gamma-Chlordane	< 0.34	U	1.9	0.34	ug/Kg
Toxaphene	< 3.6	U	19	3.6	ug/Kg
Chlordane	< 2.1	U	19	2.1	ug/Kg
<b>SURROGATES</b>					
Decachlorobiphenyl	8.6	43 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	12	60 %	30 - 150		SPK: 20

Pesticide  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-02

Client ID: TP-33

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/19/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: 3PS6996.D

Dilution: 1

Instrument ID: ECD3

Analytical Method: 8081

Analytical Run ID: 3PS0816

% Moisture: 10.0

Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
alpha-BHC	< 1.3	U	1.9	1.3	ug/Kg
beta-BHC	< 0.11	U	1.9	0.11	ug/Kg
delta-BHC	< 0.22	U	1.9	0.22	ug/Kg
gamma-BHC (Lindane)	< 0.11	U	1.9	0.11	ug/Kg
Heptachlor	< 1.1	U	1.9	1.1	ug/Kg
Aldrin	< 0.11	U	1.9	0.11	ug/Kg
Heptachlor epoxide	< 0.33	U	1.9	0.33	ug/Kg
Endosulfan I	< 0.55	U	1.9	0.55	ug/Kg
Dieldrin	< 0.11	U	1.9	0.11	ug/Kg
4,4'-DDE	< 0.22	U	1.9	0.22	ug/Kg
Endrin	< 0.88	U	1.9	0.88	ug/Kg
Endosulfan II	< 0.33	U	1.9	0.33	ug/Kg
4,4'-DDD	< 0.22	U	1.9	0.22	ug/Kg
Endosulfan sulfate	< 0.66	U	1.9	0.66	ug/Kg
4,4'-DDT	< 0.22	U	1.9	0.22	ug/Kg
Methoxychlor	< 0.11	U	1.9	0.11	ug/Kg
Endrin ketone	< 0.11	U	1.9	0.11	ug/Kg
Endrin aldehyde	< 0.88	U	1.9	0.88	ug/Kg
alpha-Chlordane	< 0.33	U	1.9	0.33	ug/Kg
gamma-Chlordane	< 0.33	U	1.9	0.33	ug/Kg
Toxaphene	< 3.5	U	19	3.5	ug/Kg
Chlordane	< 2.1	U	19	2.1	ug/Kg
<b>SURROGATES</b>					
Decachlorobiphenyl	8.95	45 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	8.43	42 %	30 - 150		SPK: 20

Pesticide  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-03

Client ID: TP-34

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8081

% Moisture: 15.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 3PS6997.D

Instrument ID: ECD3

Analytical Run ID: 3PS0816

Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
alpha-BHC	< 1.4	U	2.0	1.4	ug/Kg
beta-BHC	< 0.12	U	2.0	0.12	ug/Kg
delta-BHC	< 0.23	U	2.0	0.23	ug/Kg
gamma-BHC (Lindane)	< 0.12	U	2.0	0.12	ug/Kg
Heptachlor	< 1.2	U	2.0	1.2	ug/Kg
Aldrin	< 0.12	U	2.0	0.12	ug/Kg
Heptachlor epoxide	< 0.35	U	2.0	0.35	ug/Kg
Endosulfan I	< 0.59	U	2.0	0.59	ug/Kg
Dieldrin	< 0.12	U	2.0	0.12	ug/Kg
4,4'-DDE	< 0.23	U	2.0	0.23	ug/Kg
Endrin	< 0.94	U	2.0	0.94	ug/Kg
Endosulfan II	< 0.35	U	2.0	0.35	ug/Kg
4,4'-DDD	< 0.23	U	2.0	0.23	ug/Kg
Endosulfan sulfate	< 0.70	U	2.0	0.70	ug/Kg
4,4'-DDT	< 0.23	U	2.0	0.23	ug/Kg
Methoxychlor	< 0.12	U	2.0	0.12	ug/Kg
Endrin ketone	< 0.12	U	2.0	0.12	ug/Kg
Endrin aldehyde	< 0.94	U	2.0	0.94	ug/Kg
alpha-Chlordane	< 0.35	U	2.0	0.35	ug/Kg
gamma-Chlordane	< 0.35	U	2.0	0.35	ug/Kg
Toxaphene	< 3.8	U	20	3.8	ug/Kg
Chlordane	< 2.2	U	20	2.2	ug/Kg
<b>SURROGATES</b>					
Decachlorobiphenyl	11.11	56 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	7.45	37 %	30 - 150		SPK: 20

## Pesticide

SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-04

Client ID: TP-6D

Date Collected: 8/9/02

Date Analyzed: 8/20/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8081

% Moisture: 26.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 3PS6998.D

Instrument ID: ECD3

Analytical Run ID: 3PS0816

Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
alpha-BHC	< 1.6	U	2.3	1.6	ug/Kg
beta-BHC	< 0.13	U	2.3	0.13	ug/Kg
delta-BHC	< 0.27	U	2.3	0.27	ug/Kg
gamma-BHC (Lindane)	< 0.13	U	2.3	0.13	ug/Kg
Heptachlor	< 1.3	U	2.3	1.3	ug/Kg
Aldrin	< 0.13	U	2.3	0.13	ug/Kg
Heptachlor epoxide	< 0.40	U	2.3	0.40	ug/Kg
Endosulfan I	< 0.67	U	2.3	0.67	ug/Kg
Dieldrin	< 0.13	U	2.3	0.13	ug/Kg
4,4'-DDE	< 0.27	U	2.3	0.27	ug/Kg
Endrin	< 1.1	U	2.3	1.1	ug/Kg
Endosulfan II	< 0.40	U	2.3	0.40	ug/Kg
4,4'-DDD	< 0.27	U	2.3	0.27	ug/Kg
Endosulfan sulfate	< 0.81	U	2.3	0.81	ug/Kg
4,4'-DDT	< 0.27	U	2.3	0.27	ug/Kg
Methoxychlor	< 0.13	U	2.3	0.13	ug/Kg
Endrin ketone	< 0.13	U	2.3	0.13	ug/Kg
Endrin aldehyde	< 1.1	U	2.3	1.1	ug/Kg
alpha-Chlordane	< 0.40	U	2.3	0.40	ug/Kg
gamma-Chlordane	< 0.40	U	2.3	0.40	ug/Kg
Toxaphene	< 4.3	U	23	4.3	ug/Kg
Chlordane	< 2.6	U	23	2.6	ug/Kg
<b>SURROGATES</b>					
Decachlorobiphenyl	16.42	82 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	12.88	64 %	30 - 150		SPK: 20

## Pesticide

SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-08

Client ID: TP-13

Date Collected: 8/9/02

Date Analyzed: 8/20/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8081

% Moisture: 4.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 3PS7002.D

Instrument ID: ECD3

Analytical Run ID: 3PS0816

Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
alpha-BHC	< 1.2	U	1.7	1.2	ug/Kg
beta-BHC	< 0.10	U	1.7	0.10	ug/Kg
delta-BHC	< 0.21	U	1.7	0.21	ug/Kg
gamma-BHC (Lindane)	< 0.10	U	1.7	0.10	ug/Kg
Heptachlor	< 1.0	U	1.7	1.0	ug/Kg
Aldrin	< 0.10	U	1.7	0.10	ug/Kg
Heptachlor epoxide	< 0.31	U	1.7	0.31	ug/Kg
Endosulfan I	< 0.51	U	1.7	0.51	ug/Kg
Dieldrin	< 0.10	U	1.7	0.10	ug/Kg
4,4'-DDE	< 0.21	U	1.7	0.21	ug/Kg
Endrin	< 0.82	U	1.7	0.82	ug/Kg
Endosulfan II	< 0.31	U	1.7	0.31	ug/Kg
4,4'-DDD	< 0.21	U	1.7	0.21	ug/Kg
Endosulfan sulfate	< 0.62	U	1.7	0.62	ug/Kg
4,4'-DDT	< 0.21	U	1.7	0.21	ug/Kg
Methoxychlor	< 0.10	U	1.7	0.10	ug/Kg
Endrin ketone	< 0.10	U	1.7	0.10	ug/Kg
Endrin aldehyde	< 0.82	U	1.7	0.82	ug/Kg
alpha-Chlordane	< 0.31	U	1.7	0.31	ug/Kg
gamma-Chlordane	< 0.31	U	1.7	0.31	ug/Kg
Toxaphene	< 3.3	U	17	3.3	ug/Kg
Chlordane	< 2.0	U	17	2.0	ug/Kg
<b>SURROGATES</b>					
Decachlorobiphenyl	12.34	62 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	12.07	60 %	30 - 150		SPK: 20

## Pesticide

SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09

Client ID: TP-10

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: 3PS7003.D

Dilution: 1

Instrument ID: ECD3

Analytical Method: 8081

Analytical Run ID: 3PS0816

% Moisture: 24.0

Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
alpha-BHC	< 1.6	U	2.2	1.6	ug/Kg
beta-BHC	< 0.13	U	2.2	0.13	ug/Kg
delta-BHC	< 0.26	U	2.2	0.26	ug/Kg
gamma-BHC (Lindane)	< 0.13	U	2.2	0.13	ug/Kg
Heptachlor	< 1.3	U	2.2	1.3	ug/Kg
Aldrin	< 0.13	U	2.2	0.13	ug/Kg
Heptachlor epoxide	< 0.39	U	2.2	0.39	ug/Kg
Endosulfan I	< 0.65	U	2.2	0.65	ug/Kg
Dieldrin	< 0.13	U	2.2	0.13	ug/Kg
4,4'-DDE	< 0.26	U	2.2	0.26	ug/Kg
Endrin	< 1.0	U	2.2	1.0	ug/Kg
Endosulfan II	< 0.39	U	2.2	0.39	ug/Kg
4,4'-DDD	< 0.26	U	2.2	0.26	ug/Kg
Endosulfan sulfate	< 0.78	U	2.2	0.78	ug/Kg
4,4'-DDT	< 0.26	U	2.2	0.26	ug/Kg
Methoxychlor	< 0.13	U	2.2	0.13	ug/Kg
Endrin ketone	< 0.13	U	2.2	0.13	ug/Kg
Endrin aldehyde	< 1.0	U	2.2	1.0	ug/Kg
alpha-Chlordane	< 0.39	U	2.2	0.39	ug/Kg
gamma-Chlordane	< 0.39	U	2.2	0.39	ug/Kg
Toxaphene	< 4.2	U	22	4.2	ug/Kg
Chlordane	< 2.5	U	22	2.5	ug/Kg
<b>SURROGATES</b>					
Decachlorobiphenyl	8.4	42 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	7.55	38 %	30 - 150		SPK: 20



## Pesticide

SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-10

Client ID: TP-10D

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: 3PS7004.D

Dilution: 1

Instrument ID: ECD3

Analytical Method: 8081

Analytical Run ID: 3PS0816

% Moisture: 21.0

Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
alpha-BHC	< 1.5	U	2.1	1.5	ug/Kg
beta-BHC	< 0.13	U	2.1	0.13	ug/Kg
delta-BHC	< 0.25	U	2.1	0.25	ug/Kg
gamma-BHC (Lindane)	< 0.13	U	2.1	0.13	ug/Kg
Heptachlor	< 1.3	U	2.1	1.3	ug/Kg
Aldrin	< 0.13	U	2.1	0.13	ug/Kg
Heptachlor epoxide	< 0.38	U	2.1	0.38	ug/Kg
Endosulfan I	< 0.63	U	2.1	0.63	ug/Kg
Dieldrin	< 0.13	U	2.1	0.13	ug/Kg
4,4'-DDE	< 0.25	U	2.1	0.25	ug/Kg
Endrin	< 1.0	U	2.1	1.0	ug/Kg
Endosulfan II	< 0.38	U	2.1	0.38	ug/Kg
4,4'-DDD	< 0.25	U	2.1	0.25	ug/Kg
Endosulfan sulfate	< 0.76	U	2.1	0.76	ug/Kg
4,4'-DDT	< 0.25	U	2.1	0.25	ug/Kg
Methoxychlor	< 0.13	U	2.1	0.13	ug/Kg
Endrin ketone	< 0.13	U	2.1	0.13	ug/Kg
Endrin aldehyde	< 1.0	U	2.1	1.0	ug/Kg
alpha-Chlordane	< 0.38	U	2.1	0.38	ug/Kg
gamma-Chlordane	< 0.38	U	2.1	0.38	ug/Kg
Toxaphene	< 4.0	U	21	4.0	ug/Kg
Chlordane	< 2.4	U	21	2.4	ug/Kg
<b>SURROGATES</b>					
Decachlorobiphenyl	8.53	43 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	8.67	43 %	30 - 150		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-01

Client ID: TP-31

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 12.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8397.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 5.9	U	19	5.9	ug/Kg
AROCLOR 1221	< 1.5	U	19	1.5	ug/Kg
AROCLOR 1232	< 9.0	U	19	9.0	ug/Kg
AROCLOR 1242	< 2.5	U	19	2.5	ug/Kg
AROCLOR 1248	< 6.2	U	19	6.2	ug/Kg
AROCLOR 1254	< 12	U	19	12	ug/Kg
AROCLOR 1260	< 2.3	U	19	2.3	ug/Kg
<b>SURROGATES</b>					
tetrachloro-m-xylene	17.02	85 %	24 - 151		SPK: 20
Decachlorobiphenyl	15.55	78 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-02

Client ID: TP-33

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 10.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8398.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 5.7	U	19	5.7	ug/Kg
AROCLOR 1221	< 1.4	U	19	1.4	ug/Kg
AROCLOR 1232	< 8.8	U	19	8.8	ug/Kg
AROCLOR 1242	< 2.4	U	19	2.4	ug/Kg
AROCLOR 1248	< 6.1	U	19	6.1	ug/Kg
AROCLOR 1254	< 12	U	19	12	ug/Kg
AROCLOR 1260	< 2.2	U	19	2.2	ug/Kg
<b>URROGATES</b>					
tetrachloro-m-xylene	17.74	89 %	24 - 151		SPK: 20
Decachlorobiphenyl	15.63	78 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-03

Client ID: TP-34

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 15.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8399.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 6.1	U	20	6.1	ug/Kg
AROCLOR 1221	< 1.5	U	20	1.5	ug/Kg
AROCLOR 1232	< 9.4	U	20	9.4	ug/Kg
AROCLOR 1242	< 2.6	U	20	2.6	ug/Kg
AROCLOR 1248	< 6.4	U	20	6.4	ug/Kg
AROCLOR 1254	110		20	12	ug/Kg
AROCLOR 1260	< 2.3	U	20	2.3	ug/Kg
<b>URROGATES</b>					
tetrachloro-m-xylene	16.78	84 %	24 - 151		SPK: 20
Decachlorobiphenyl	23.48	117 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-04

Client ID: TP-6D

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 26.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8400.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 7.0	U	23	7.0	ug/Kg
AROCLOR 1221	< 1.8	U	23	1.8	ug/Kg
AROCLOR 1232	< 11	U	23	11	ug/Kg
AROCLOR 1242	< 3.0	U	23	3.0	ug/Kg
AROCLOR 1248	< 7.4	U	23	7.4	ug/Kg
AROCLOR 1254	430		23	14	ug/Kg
AROCLOR 1260	< 2.7	U	23	2.7	ug/Kg
<b>SURROGATES</b>					
tetrachloro-m-xylene	17.84	89 %	24 - 151		SPK: 20
Decachlorobiphenyl	15.07	75 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-05

Client ID: TP-6

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 18.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8401.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 6.3	U	21	6.3	ug/Kg
AROCLOR 1221	< 1.6	U	21	1.6	ug/Kg
AROCLOR 1232	< 9.7	U	21	9.7	ug/Kg
AROCLOR 1242	< 2.7	U	21	2.7	ug/Kg
AROCLOR 1248	< 6.7	U	21	6.7	ug/Kg
AROCLOR 1254	2400	E	21	13	ug/Kg
AROCLOR 1260	< 2.4	U	21	2.4	ug/Kg
<b>SURROGATES</b>					
tetrachloro-m-xylene	15.44	77 %	24 - 151		SPK: 20
Decachlorobiphenyl	18.13	91 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-05

Client ID: TP-6DL

Date Collected: 8/9/02

Date Analyzed: 8/20/02

Date Extracted: 8/14/02

Dilution: 10

Analytical Method: 8082

% Moisture: 18.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8430.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 63	U	210	63	ug/Kg
AROCLOR 1221	< 16	U	210	16	ug/Kg
AROCLOR 1232	< 97	U	210	97	ug/Kg
AROCLOR 1242	< 27	U	210	27	ug/Kg
AROCLOR 1248	< 67	U	210	67	ug/Kg
AROCLOR 1254	2600		210	130	ug/Kg
AROCLOR 1260	< 24	U	210	24	ug/Kg
<b>SURROGATES</b>					
Tetrachloro-m-xylene	19.4	97 %	24 - 151		SPK: 20
Decachlorobiphenyl	16.8	84 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06

Client ID: TP-4

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 24.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8402.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 6.8	U	22	6.8	ug/Kg
AROCLOR 1221	< 1.7	U	22	1.7	ug/Kg
AROCLOR 1232	< 11	U	22	11	ug/Kg
AROCLOR 1242	< 2.9	U	22	2.9	ug/Kg
AROCLOR 1248	< 7.2	U	22	7.2	ug/Kg
AROCLOR 1254	2600	E	22	14	ug/Kg
AROCLOR 1260	< 2.6	U	22	2.6	ug/Kg
<b>URROGATES</b>					
tetrachloro-m-xylene	13.91	70 %	24 - 151		SPK: 20
Decachlorobiphenyl	19.08	95 %	24 - 151		SPK: 20



PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06

Client ID: TP-4DL

Date Collected: 8/9/02

Date Received: 8/9/02

Date Analyzed: 8/20/02

Matrix: SOIL

Date Extracted: 8/14/02

File ID: 4PC8431.D

Dilution: 10

Instrument ID: ECD4

Analytical Method: 8082

Analytical Run ID: 4PC0805

% Moisture: 24.0

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 68	U	220	68	ug/Kg
AROCLOR 1221	< 17	U	220	17	ug/Kg
AROCLOR 1232	< 110	U	220	110	ug/Kg
AROCLOR 1242	< 29	U	220	29	ug/Kg
AROCLOR 1248	< 72	U	220	72	ug/Kg
AROCLOR 1254	2800		220	140	ug/Kg
AROCLOR 1260	< 26	U	220	26	ug/Kg
<b>SURROGATES</b>					
Tetrachloro-m-xylene	20.5	103 %	24 - 151		SPK: 20
Decachlorobiphenyl	18.9	95 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-07

Client ID: TP-4D

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 20.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8403.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 6.4	U	21	6.4	ug/Kg
AROCLOR 1221	< 1.6	U	21	1.6	ug/Kg
AROCLOR 1232	< 9.9	U	21	9.9	ug/Kg
AROCLOR 1242	< 2.7	U	21	2.7	ug/Kg
AROCLOR 1248	< 6.8	U	21	6.8	ug/Kg
AROCLOR 1254	< 13	U	21	13	ug/Kg
AROCLOR 1260	< 2.5	U	21	2.5	ug/Kg
<b>TURROGATES</b>					
Tetrachloro-m-xylene	17.11	86 %	24 - 151		SPK: 20
Decachlorobiphenyl	18.58	93 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-08

Client ID: TP-13

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 4.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8404.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>ARGETS</b>					
AROCLOR 1016	< 5.3	U	17	5.3	ug/Kg
AROCLOR 1221	< 1.3	U	17	1.3	ug/Kg
AROCLOR 1232	< 8.2	U	17	8.2	ug/Kg
AROCLOR 1242	< 2.3	U	17	2.3	ug/Kg
AROCLOR 1248	< 5.7	U	17	5.7	ug/Kg
AROCLOR 1254	43		17	11	ug/Kg
AROCLOR 1260	< 2.1	U	17	2.1	ug/Kg
<b>URROGATES</b>					
tetrachloro-m-xylene	15.37	77 %	24 - 151		SPK: 20
Decachlorobiphenyl	13.81	69 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09

Client ID: TP-10

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 24.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8405.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 6.8	U	22	6.8	ug/Kg
AROCLOR 1221	< 1.7	U	22	1.7	ug/Kg
AROCLOR 1232	< 10	U	22	10	ug/Kg
AROCLOR 1242	< 2.9	U	22	2.9	ug/Kg
AROCLOR 1248	< 7.2	U	22	7.2	ug/Kg
AROCLOR 1254	560	E	22	14	ug/Kg
AROCLOR 1260	< 2.6	U	22	2.6	ug/Kg
<b>SURROGATES</b>					
Tetrachloro-m-xylene	13.63	68 %	24 - 151		SPK: 20
Decachlorobiphenyl	14.81	74 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09

Client ID: TP-10DL

Date Collected: 8/9/02

Date Analyzed: 8/20/02

Date Extracted: 8/14/02

Dilution: 10

Analytical Method: 8082

% Moisture: 24.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8432.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
<b>TARGETS</b>					
AROCLOR 1016	< 68	U	220	68	ug/Kg
AROCLOR 1221	< 17	U	220	17	ug/Kg
AROCLOR 1232	< 100	U	220	100	ug/Kg
AROCLOR 1242	< 29	U	220	29	ug/Kg
AROCLOR 1248	< 72	U	220	72	ug/Kg
AROCLOR 1254	650		220	140	ug/Kg
AROCLOR 1260	< 26	U	220	26	ug/Kg
<b>TURROGATES</b>					
Tetrachloro-m-xylene	20.7	104 %	24 - 151		SPK: 20
Decachlorobiphenyl	13.5	68 %	24 - 151		SPK: 20

PCB  
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-10

Client ID: TP-10D

Date Collected: 8/9/02

Date Analyzed: 8/19/02

Date Extracted: 8/14/02

Dilution: 1

Analytical Method: 8082

% Moisture: 21.0

Date Received: 8/9/02

Matrix: SOIL

File ID: 4PC8406.D

Instrument ID: ECD4

Analytical Run ID: 4PC0805

Associated Blank: PB081402-06.B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 6.6	U	21	6.6	ug/Kg
AROCLOR 1221	< 1.6	U	21	1.6	ug/Kg
AROCLOR 1232	< 10	U	21	10	ug/Kg
AROCLOR 1242	< 2.8	U	21	2.8	ug/Kg
AROCLOR 1248	< 6.9	U	21	6.9	ug/Kg
AROCLOR 1254	< 13	U	21	13	ug/Kg
AROCLOR 1260	< 2.5	U	21	2.5	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	17.72	89 %	24 - 151		SPK: 20
Decachlorobiphenyl	15.9	79 %	24 - 151		SPK: 20

**METALS**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

**Client:** PMK Group

**SDG No.:** P3702

**Method Type:** SW846

**Sample ID:** P3702-01

**Client ID:** TP-31

**Contract:** PMK Group

**Lab Code:** CHEMED

**Case No.:**

**SAS No.:** P3702

**Matrix:** SOIL

**Date Received:** 8/9/02

**Level:** LOW

**% Solids:** 88

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	7.2	mg/Kg			P	0.26	P1	P182602
40-38-2	Arsenic	37.9	mg/Kg			P	0.30	P1	P182602
7440-41-7	Beryllium	0.57	mg/Kg	B	E	P	0.01	P1	P182602
40-43-9	Cadmium	0.74	mg/Kg			P	0.06	P1	P182602
7440-47-3	Chromium	11.8	mg/Kg			P	0.08	P1	P182602
7440-50-8	Copper	74.1	mg/Kg			P	0.17	P1	P182602
39-92-1	Lead	197	mg/Kg			P	0.20	P1	P182602
7439-97-6	Mercury	0.10	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	10.0	mg/Kg			P	0.25	P1	P182602
82-49-2	Selenium	2.6	mg/Kg			P	0.38	P1	P182602
7440-22-4	Silver	1.5	mg/Kg			P	0.42	P1	P182602
40-28-0	Thallium	0.66	mg/Kg	U		P	0.66	P1	P182602
7440-66-6	Zinc	52.5	mg/Kg			P	0.07	P1	P182602

**Color Before:** BROWN

**Clarity Before:**

**Texture:** MEDIUM

**Color After:** YELLOW

**Clarity After:**

**Artifacts:**

**Comments:**

**METALS**

**- 1 -  
INORGANIC ANALYSIS DATA PACKAGE**

**Client:** PMK Group

**SDG No.:** P3702

**Method Type:** SW846

**Sample ID:** P3702-02

**Client ID:** TP-33

**Contract:** PMK Group

**Lab Code:** CHEMED

**Case No.:** \_\_\_\_\_

**SAS No.:** P3702

**Matrix:** SOIL

**Date Received:** 8/9/02

**Level:** LOW

**% Solids:** 90

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	0.26	mg/Kg	U		P	0.26	P1	P182602
40-38-2	Arsenic	7.9	mg/Kg			P	0.29	P1	P182602
7440-41-7	Beryllium	0.58	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.54	mg/Kg	B		P	0.06	P1	P182602
7440-47-3	Chromium	10.7	mg/Kg			P	0.08	P1	P182602
7440-50-8	Copper	47.6	mg/Kg			P	0.17	P1	P182602
39-92-1	Lead	75.5	mg/Kg			P	0.20	P1	P182602
7439-97-6	Mercury	0.05	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	7.3	mg/Kg			P	0.24	P1	P182602
82-49-2	Selenium	0.85	mg/Kg			P	0.37	P1	P182602
7440-22-4	Silver	1.0	mg/Kg	B		P	0.41	P1	P182602
40-28-0	Thallium	0.64	mg/Kg	U		P	0.64	P1	P182602
7440-66-6	Zinc	100	mg/Kg			P	0.07	P1	P182602

**Color Before:** BROWN

**Clarity Before:** \_\_\_\_\_

**Texture:** MEDIUM

**Color After:** YELLOW

**Clarity After:** \_\_\_\_\_

**Artifacts:** \_\_\_\_\_

**Comments:** \_\_\_\_\_



## METALS

- 1 -

## INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group

SDG No.: P3702

Method Type: SW846

Sample ID: P3702-03

Client ID: TP-34

Contract: PMK Group

Lab Code: CHEMED

Case No.:

SAS No.: P3702

Matrix: SOIL

Date Received: 8/9/02

Level: LOW

% Solids: 85

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
140-36-0	Antimony	0.27	mg/Kg	U		P	0.27	P1	P182602
140-38-2	Arsenic	7.0	mg/Kg			P	0.30	P1	P182602
7440-41-7	Beryllium	0.58	mg/Kg		E	P	0.01	P1	P182602
140-43-9	Cadmium	0.50	mg/Kg	B		P	0.06	P1	P182602
7440-47-3	Chromium	11.4	mg/Kg			P	0.08	P1	P182602
140-50-8	Copper	47.5	mg/Kg			P	0.17	P1	P182602
39-92-1	Lead	67.5	mg/Kg			P	0.21	P1	P182602
7439-97-6	Mercury	0.12	mg/Kg			CV	0.01	CV1	081602C
140-02-0	Nickel	6.6	mg/Kg			P	0.26	P1	P182602
1782-49-2	Selenium	1.0	mg/Kg			P	0.38	P1	P182602
7440-22-4	Silver	0.88	mg/Kg	B		P	0.43	P1	P182602
140-28-0	Thallium	0.68	mg/Kg	U		P	0.68	P1	P182602
7440-66-6	Zinc	97.7	mg/Kg			P	0.07	P1	P182602

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

## METALS

- 1 -

## INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group

SDG No.: P3702

Method Type: SW846

Sample ID: P3702-04

Client ID: TP-6D

Contract: PMK Group

Lab Code: CHEMED

Case No.:

SAS No.: P3702

Matrix: SOIL

Date Received: 8/9/02

Level: LOW

% Solids: 74

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-36-0	Antimony	5.6	mg/Kg	B		P	0.31	P1	P182602
40-38-2	Arsenic	46.7	mg/Kg			P	0.35	P1	P182602
7440-41-7	Beryllium	2.4	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.48	mg/Kg	B		P	0.07	P1	P182602
40-47-3	Chromium	17.8	mg/Kg			P	0.09	P1	P182602
7440-50-8	Copper	64.9	mg/Kg			P	0.20	P1	P182602
39-92-1	Lead	556	mg/Kg			P	0.24	P1	P182602
7439-97-6	Mercury	0.14	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	10.3	mg/Kg			P	0.29	P1	P182602
82-49-2	Selenium	1.6	mg/Kg			P	0.44	P1	P182602
7440-22-4	Silver	0.79	mg/Kg	B		P	0.50	P1	P182602
40-28-0	Thallium	0.78	mg/Kg	U		P	0.78	P1	P182602
7440-66-6	Zinc	90.6	mg/Kg			P	0.08	P1	P182602

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

## METALS

- 1 -

## INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group

SDG No.: P3702

Method Type: SW846

Sample ID: P3702-05

Client ID: TP-6

Contract: PMK Group

Lab Code: CHEMED

Case No.:

SAS No.: P3702

Matrix: SOIL

Date Received: 8/9/02

Level: LOW

% Solids: 82

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-36-0	Antimony	2.0	mg/Kg	B		P	0.28	P1	P182602
7440-38-2	Arsenic	41.4	mg/Kg			P	0.32	P1	P182602
7440-41-7	Beryllium	0.65	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.95	mg/Kg			P	0.06	P1	P182602
7440-47-3	Chromium	13.0	mg/Kg			P	0.09	P1	P182602
40-50-8	Copper	48.4	mg/Kg			P	0.18	P1	P182602
739-92-1	Lead	125	mg/Kg			P	0.22	P1	P182602
7439-97-6	Mercury	0.09	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	10.1	mg/Kg			P	0.27	P1	P182602
7782-49-2	Selenium	0.58	mg/Kg	B		P	0.40	P1	P182602
7440-22-4	Silver	0.68	mg/Kg	B		P	0.45	P1	P182602
40-28-0	Thallium	0.71	mg/Kg	U		P	0.71	P1	P182602
7440-66-6	Zinc	187	mg/Kg			P	0.07	P1	P182602

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

**METALS**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: PMK Group

SDG No.: P3702

Method Type: SW846

Sample ID: P3702-06

Client ID: TP-4

Contract: PMK Group

Lab Code: CHEMED

Case No.: \_\_\_\_\_

SAS No.: P3702

Matrix: SOIL

Date Received: 8/9/02

Level: LOW

% Solids: 76

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-36-0	Antimony	3.7	mg/Kg	B		P	0.30	P1	P182602
40-38-2	Arsenic	16.6	mg/Kg			P	0.34	P1	P182602
7440-41-7	Beryllium	0.66	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	20.2	mg/Kg			P	0.07	P1	P182602
7440-47-3	Chromium	81.5	mg/Kg			P	0.09	P1	P182602
40-50-8	Copper	87.7	mg/Kg			P	0.20	P1	P182602
39-92-1	Lead	245	mg/Kg			P	0.24	P1	P182602
7439-97-6	Mercury	0.14	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	28.4	mg/Kg			P	0.29	P1	P182602
7782-49-2	Selenium	2.1	mg/Kg			P	0.43	P1	P182602
7440-22-4	Silver	5.9	mg/Kg			P	0.49	P1	P182602
40-28-0	Thallium	0.76	mg/Kg	U		P	0.76	P1	P182602
7440-66-6	Zinc	203	mg/Kg			P	0.08	P1	P182602

Color Before: BROWN

Clarity Before: \_\_\_\_\_

Texture: MEDIUM

Color After: YELLOW

Clarity After: \_\_\_\_\_

Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

## METALS

- 1 -

## INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group

SDG No.: P3702

Method Type: SW846

Sample ID: P3702-07

Client ID: TP-4D

Contract: PMK Group

Lab Code: CHEMED

Case No.:

SAS No.: P3702

Matrix: SOIL

Date Received: 8/9/02

Level: LOW

% Solids: 80

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
140-36-0	Antimony	0.89	mg/Kg	B		P	0.28	P1	P182602
40-38-2	Arsenic	2.6	mg/Kg			P	0.32	P1	P182602
7440-41-7	Beryllium	0.26	mg/Kg	B	E	P	0.01	P1	P182602
40-43-9	Cadmium	0.20	mg/Kg	B		P	0.06	P1	P182602
7440-47-3	Chromium	7.4	mg/Kg			P	0.09	P1	P182602
7440-50-8	Copper	2.6	mg/Kg	B		P	0.18	P1	P182602
39-92-1	Lead	2.8	mg/Kg			P	0.22	P1	P182602
7439-97-6	Mercury	0.01	mg/Kg	U		CV	0.01	CV1	081602C
40-02-0	Nickel	2.9	mg/Kg	B		P	0.27	P1	P182602
782-49-2	Selenium	0.47	mg/Kg	B		P	0.40	P1	P182602
7440-22-4	Silver	0.45	mg/Kg	U		P	0.45	P1	P182602
40-28-0	Thallium	0.71	mg/Kg	U		P	0.71	P1	P182602
7440-66-6	Zinc	18.2	mg/Kg			P	0.07	P1	P182602

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

**METALS**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: PMK Group

SDG No.: P3702

Method Type: SW846

Sample ID: P3702-08

Client ID: TP-13

Contract: PMK Group

Lab Code: CHEMED

Case No.: \_\_\_\_\_

SAS No.: P3702

Matrix: SOIL

Date Received: 8/9/02

Level: LOW

% Solids: 96

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-36-0	Antimony	0.43	mg/Kg	B		P	0.24	P1	P182602
40-38-2	Arsenic	9.5	mg/Kg			P	0.27	P1	P182602
7440-41-7	Beryllium	3.3	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.05	mg/Kg	U		P	0.05	P1	P182602
7440-47-3	Chromium	9.4	mg/Kg			P	0.07	P1	P182602
7440-50-8	Copper	1.7	mg/Kg	B		P	0.16	P1	P182602
39-92-1	Lead	5.1	mg/Kg			P	0.19	P1	P182602
7439-97-6	Mercury	0.01	mg/Kg	U		CV	0.01	CV1	081602C
40-02-0	Nickel	0.23	mg/Kg	U		P	0.23	P1	P182602
782-49-2	Selenium	0.68	mg/Kg			P	0.34	P1	P182602
7440-22-4	Silver	0.39	mg/Kg	U		P	0.39	P1	P182602
40-28-0	Thallium	0.60	mg/Kg	U		P	0.60	P1	P182602
7440-66-6	Zinc	7.1	mg/Kg			P	0.06	P1	P182602

Color Before: BROWN

Clarity Before: \_\_\_\_\_

Texture: MEDIUM

Color After: YELLOW

Clarity After: \_\_\_\_\_

Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

## METALS

- 1 -

## INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group

SDG No.: P3702

Method Type: SW846

Sample ID: P3702-09

Client ID: TP-10

Contract: PMK Group

Lab Code: CHEMED

Case No.:

SAS No.: P3702

Matrix: SOIL

Date Received: 8/9/02

Level: LOW

% Solids: 76

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-36-0	Antimony	0.30	mg/Kg	B		P	0.30	P1	P182602
440-38-2	Arsenic	0.64	mg/Kg	B		P	0.34	P1	P182602
7440-41-7	Beryllium	0.78	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.07	mg/Kg	U		P	0.07	P1	P182602
7440-47-3	Chromium	2.1	mg/Kg			P	0.09	P1	P182602
40-50-8	Copper	0.20	mg/Kg	U		P	0.20	P1	P182602
39-92-1	Lead	0.86	mg/Kg			P	0.24	P1	P182602
7439-97-6	Mercury	0.52	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	0.29	mg/Kg	U		P	0.29	P1	P182602
7782-49-2	Selenium	0.43	mg/Kg	U		P	0.43	P1	P182602
40-22-4	Silver	0.49	mg/Kg	U		P	0.49	P1	P182602
40-28-0	Thallium	0.76	mg/Kg	U		P	0.76	P1	P182602
7440-66-6	Zinc	0.08	mg/Kg	U		P	0.08	P1	P182602

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

## METALS

- 1 -

## INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group

SDG No.: P3702

Method Type: SW846

Sample ID: P3702-10

Client ID: TP-10D

Contract: PMK Group

Lab Code: CHEMED

Case No.:

SAS No.: P3702

Matrix: SOIL

Date Received: 8/9/02

Level: LOW

% Solids: 79

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
140-36-0	Antimony	0.29	mg/Kg	U		P	0.29	P1	P182602
140-38-2	Arsenic	0.33	mg/Kg	U		P	0.33	P1	P182602
7440-41-7	Beryllium	0.38	mg/Kg	B	E	P	0.01	P1	P182602
140-43-9	Cadmium	0.06	mg/Kg	U		P	0.06	P1	P182602
140-47-3	Chromium	1.2	mg/Kg	B		P	0.09	P1	P182602
7440-50-8	Copper	0.19	mg/Kg	U		P	0.19	P1	P182602
139-92-1	Lead	0.37	mg/Kg	B		P	0.23	P1	P182602
7439-97-6	Mercury	0.07	mg/Kg			CV	0.01	CV1	081602C
140-02-0	Nickel	0.28	mg/Kg	U		P	0.28	P1	P182602
82-49-2	Selenium	0.41	mg/Kg	U		P	0.41	P1	P182602
7440-22-4	Silver	0.46	mg/Kg	U		P	0.46	P1	P182602
140-28-0	Thallium	0.73	mg/Kg	U		P	0.73	P1	P182602
7440-66-6	Zinc	0.08	mg/Kg	U		P	0.08	P1	P182602

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:



## GENERAL CHEMISTRY Analyses Data Sheet

SDG No.: P3702

Sample ID:	P3702-01	Client ID:	TP-31
Contract:	PMK Group	Date Collected:	8/9/02
Matrix:	SOIL	% Solids:	88.00
Date Received:	8/9/02		

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.420	mg/Kg	0		1	8/20/02
Cyanide	9012	0.640	mg/Kg			1	8/17/02

Comments:

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**GENERAL CHEMISTRY  
Analyses Data Sheet**

SDG No.: P3702

Sample ID: <u>P3702-02</u>	Client ID: <u>TP-33</u>
Contract: <u>PMK Group</u>	Date Collected: <u>8/9/02</u> Date Received: <u>8/9/02</u>
Matrix: <u>SOIL</u> % Solids: <u>89.80</u>	

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.392	mg/Kg	U		1	8/20/02
Cyanide	9012	0.620	mg/Kg			1	8/17/02

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## GENERAL CHEMISTRY Analyses Data Sheet

SDG No.: P3702

Sample ID:	P3702-03	Client ID:	TP-34		
Contract:	PMK Group	Date Collected:	8/9/02	Date Received:	8/9/02
Matrix:	SOIL	% Solids:	84.80		

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.474	mg/Kg	U		1	8/20/02
Pinide	9012	< 0.590	mg/Kg	U		1	8/17/02

Comments:

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**GENERAL CHEMISTRY  
Analyses Data Sheet**

SDG No.: P3702

Sample ID: P3702-04

Client ID: TP-6D

Contract: PMK Group

Date Collected: 8/9/02

Date Received: 8/9/02

Matrix: SOIL

% Solids: 74.40

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.680	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.670	mg/Kg	U		1	8/17/02

Comments:

GENERAL CHEMISTRY  
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-05

Client ID: TP-6

Contract: PMK Group

Date Collected: 8/9/02

Date Received: 8/9/02

Matrix: SOIL

% Solids: 82.40

Analyste	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.517	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.610	mg/Kg	U		1	8/17/02

Comments:

**GENERAL CHEMISTRY  
Analyses Data Sheet**

SDG No.: P3702

Sample ID:	<u>P3702-06</u>	Client ID:	<u>TP-4</u>
Contract:	<u>PMK Group</u>	Date Collected:	<u>8/9/02</u>
Matrix:	<u>SOIL</u>	% Solids:	<u>76.20</u>
Date Received:	<u>8/9/02</u>		

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.640	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.660	mg/Kg	U		1	8/17/02

Comments:

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## GENERAL CHEMISTRY Analyses Data Sheet

SDG No.: P3702

Sample ID:	<u>P3702-07</u>	Client ID:	<u>TP-4D</u>
Contract:	<u>PMK Group</u>	Date Collected:	<u>8/9/02</u> Date Received: <u>8/9/02</u>
Matrix:	<u>SOIL</u>	% Solids:	<u>80.00</u>

analyzer	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.562	mg/Kg	U		1	8/20/02
Granide	9012	< 0.630	mg/Kg	U		1	8/17/02

Comments: \_\_\_\_\_

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## GENERAL CHEMISTRY Analyses Data Sheet

SDG No.: P3702

Sample ID:	P3702-08	Client ID:	TP-13		
Contract:	PMK Group	Date Collected:	8/9/02	Date Received:	8/9/02
Matrix:	SOIL	% Solids:	96.20		

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.299	mg/Kg	0		1	8/20/02
Cyanide	9012	7.14	mg/Kg			1	8/17/02

Comments:

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GENERAL CHEMISTRY  
Analyses Data Sheet

SDG No.: P3702

Sample ID:	P3702-09	Client ID:	TP-10		
Contract:	PMK Group	Date Collected:	8/9/02	Date Received:	8/9/02
Matrix:	SOIL	% Solids:	75.70		

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	3.30	mg/Kg			1	8/20/02
Phenoxide	9012	< 0.660	mg/Kg	U		1	8/17/02

Comments:

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GENERAL CHEMISTRY  
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-10

Client ID: TP-10D

Contract: PMK Group

Date Collected: 8/9/02

Date Received: 8/9/02

Matrix: SOIL

% Solids: 79.40

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.574	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.630	mg/Kg	U		1	8/17/02

Comments: